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# INDEX TO VOL. XXXIV.

## LIST OF CONTRIBUTORS

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Woodhead, G. Sims, M.D., Toronto.  
Wright, Adam H., M.D., Toronto.

## EDITORIALS

	Page		Page
Ancient Medicine .....	244	Flies and Mosquitos as Carriers of Disease .....	450
An Official Journal .....	652	German Round Table Club, The ....	317
Banff Meeting .....	789	Hospital Charities of London .....	124
British Medical Association .....	594	Hospitals and Charities .....	313
Canadian Medical Association, The ..	182	International Council of Women, The..	514
Canadian Medical Association, The ..	372	International Medical Congress .....	125
Canadian Medical Association, The ..	515	International Medical Congress .....	183
Canadian Medical Association, The ..	596	International Medical Congress .....	318
Canadian Medical Association, The ..	654	Inter-Provincial Reciprocity .....	518
Canadian Medical Protective Association .....	705	Inter-Provincial Registration .....	651
Centenary of Oliver Wendell Holmes, The ..	703	Lister's Writings .....	451
City of Winnipeg, The .....	595	Medical Experts .....	243
Constructive Critic, The .....	180	Medical Men and Legacies from Patients .....	242
Death on the Operating Table .....	122	Meeting of the American Academy of Ophthalmology and Oto-Laryngology .....	708
Doctor Cook and the North Pole .....	653	Medical Automobilists .....	785
Effect of Baths upon the Heart, The..	241		
Fire Drill in Schools .....	317		



	Page		Page
Medical Events in Hamilton .....	788	Plea of Insanity, The .....	593
Military Training in Universities and Public Schools .....	245	Poor White, The .....	786
New City Morgue, The .....	126	Prophet in His Own Country, The ....	56
New Hospital and University of To- ronto, The .....	516	Proposed Toronto University Regi- ment, The .....	375
New Professor of Physiology .....	58	Pure Milk .....	374
Notes: 60, 61, 62, 127, 185, 186, 187, 246, 321, 376, 377, 378, 379, 453, 520, 521 .....	721	Radium in Surgery .....	180
"Old Boys" of Toronto General Hos- pital .....	316	Reciprocity with Great Britain .....	784
Old Hospital Property, The .....	517	Responsibility of Hospitals .....	315
Ontario Medical Association .....	121	Roddick Bill, The .....	782
Ontario Medical Association .....	312	Royal Edward Tuberculosis Institute, The .....	709
Ontario Medical Association .....	447	Surgeon's Courage, A .....	184
Ontario Medical Council .....	781	Toronto General Hospital .....	373
Operations and Proper Names .....	783	Ventilation .....	707
Operations for Internal Hemorrhage..	57	Work of Dr. Wilfrid T. Grenfell .....	318
Pasteurized Milk .....	787	Western Federation .....	780
Physical Therapeutics .....	123		

## OBITUARY

	Page		Page
Anderson, J. N., M.D. ....	455	Horrocks, Peter, M.D., F.R.C.P. ....	253
Barnhart, Charles E., M.B. ....	189	Husband, Geo. Edmund, M.D. ....	663
Barr, John, M.D. ....	792	Jones, P. E., M.D. ....	527
Bull, W. T., M.D. ....	254	Mackelcan, George Lloyd, M.D. ....	455
Burgar, William Edmund, M.D. ....	254	Mackenzie, Sir Stephen, M.D. ....	792
Carder, Denison DeLoss, M.D. ....	254	McKenna, Charles H., M.B. ....	253
Carlaw, Thomas W., M.D. ....	253	McMahan, James, M.D. ....	382
Clark, Lieut.-Col. Charles .....	323	McNamara, Charles J., M.B. ....	382
Clutton, H. H., M.D., F.R.C.S. ....	792	Penrose, Richard A. F., M.D. ....	129
Cockburn, William, M.D. ....	792	Ratcliffe, William Greig, M.B. ....	527
Dryden, James Robert, M.B. ....	66	Robertson, Argyll, M.D. ....	189
Easton, John, M.D. ....	189	Springer, Warren D., M.D. ....	725
Fraser, Donald Martin, M.D. ....	129	Steele, Alexander Thomas, M.B. ....	129
Fulton, James, M.B. ....	663	Stephens, Alexander R., M.B. ....	129
Gillespie, Donald, M.D. ....	66	Stewart, Duncan A., M.B. ....	253
Glasgow, Lt.-Col. Sinclair, M.D. ....	254	Wright, Hiram A., M.D. ....	792
Goldsmith, Peter David, M.D. ....	323	Young, Daniel, M.D. ....	253
Hamilton, David James, LL.D., M.B.	253		

## BOOK REVIEWS

	Page		Page
After-Treatment of Operations, The, by Lockart Mummery .....	531	Changing Values of English Speech, The, by Percy Husted Bell .....	255
Aid to Obstetrics, by Samuel Nall....	383	Common Disorders and Diseases of Childhood, by George F. Still ....	528
Applied Physiology, by Robert Hutchi- son .....	190	Diathesis and Ocular Diseases, by A. Maitland Ramsey .....	257
Applied Surgical Anatomy, by George Woolsey .....	193	Diseases of the Digestive Canal, by Dr. Paul Cohnheim .....	257
Backbone, by De Witt Clough .....	466	Diseases of the Eye, by Stephen Mayon	325
Bacterial Food Poisoning, by Prof. A. Dieudonne .....	256	Elementary Practical Treatise on Dis- eases of the Pharynx and Larynx, by Dr. J. E. Moure .....	533
Blood Examination in Surgical Diagno- sis, by Ira S. Wile .....	191	Etiology and Nature of Cancerous and Other Growths, The, by W. T. Gib- son .....	468
Campaign Against Microbes, The, by Etienne Burnet .....	669	Exploits of a Physician Detective, by George F. Butler .....	324
Causation of Sex, by E. Rumley Daw- son .....	385		



	Page		Page
Fourth Annual Report of the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis, by Joseph Walsh ....	67	Open Air or Sanatorium Treatment of Pulmonary Tuberculosis, by F. R. Walters .....	730
Green's Encyclopedia and Dictionary of Medicine and Surgery .....	67	Physiological and Medical Observations Among the Indians of Southwestern United States and Northern Mexico, by Alec. Hedlicka .....	466
Green's Encyclopedia and Dictionary of Medicine and Surgery, by J. W. Ballantyne .....	259	Practical Dietetics, by Alida Frances Pattee .....	383
Handbook of the Diseases of the Nose and Throat, by Eugene S. Yonge..	532	Principles and Practice of Dermatology, by Wm. Allen Pusey .....	258
Handbook of Medical Diagnosis, by J. C. Wilson, A. M., M.D. ....	795	Proceedings of the Royal Society of Medicine, Vol. II. ....	325
Hydrotherapy, by Wm. H. Diefenbach.	528	Progressive Medicine, by H. A. Hare..	132
Immunity and Specific Therapy, by H. Deste Emery .....	669	Progressive Medicine, by H. A. Hare..	324
International Clinics, Vol I. and II. ...	532	Progressive Medicine, by H. A. Hare..	629
International Clinics, Vol. III., by W. T. Longcope .....	368	Progressive Medicine, by H. A. Hare..	668
International Clinics, Vol. IV., by W. T. Longcope .....	132	Publications in Medicine and Natural Science, by J. and A. Churchill ..	729
Intestinal Auto-Intoxication, by A. Combe .....	192	Sanitarium Chart .....	259
Lehrbuch, Der Hebammenkunst, by Dr. Bernhard Sigmund Schultze ....	193	Soured Milk and Pure Cultures of Lactic Acid Bacilli in the Treatment of Disease, by Geo. Herschell ....	256
Manual of Otolgy, A. by Gorham Baron .....	730	Surgery of the Ear, The, by Samuel J. Kopetzky .....	192
Modern Medicine, its Theory, Practice, Vol. V., by William Osler .....	133	Surgery, Its Principles and Practice, Vol. IV., by W. W. Keen .....	383
Modern Medicine, Its Theory and Practice, Vol. VI., by William Osler, M.D. ....	794	System of Syphilis, A, by D'Arcy Power and J. Keogh Murphy .....	530
Myomata of the Uterus, by Howard A. Kelly .....	529	Text-Book of Gynecological Diagnosis, by Dr. George Winter .....	467
Nauhelm Treatment of Diseases of the Heart and Circulation, The, by Leslie Thorne Thome .....	466	Text-Book of Practical Therapeutics, by H. A. Hare .....	729
New and Non-Official Remedies, 1909..	324	Theory Regarding the Origin of Cancer, by G. E. Green .....	729
Nose, Throat, and Ear, by Francis R. Packard .....	255	Transactions of the American Pediatric Society .....	466
Operations of Aural Surgery, The, by Ernest West .....	384	Tuberculin in Diagnosis and Treatment, by Dr. Bandelier and Dr. Rolph .....	467
		Vaccine and Serum Therapy, by Edwin Henry Scharer, B.S., M.D. ....	795
		Writing the Short Story, by J. Berg. Esenwein .....	532
		Wynter's Minor Medicine, by W. E. Wynter .....	190

## ARTICLES

	Page		Page
Abdominal Aortitis, Differentiation ...	369	Aneurysm of Aorta, Treatment of ....	398
Abstract of Address of the President, Dr. R. J. Blanchard, at the Winnipeg Meeting .....	658	Appendicitis, An Instructive Fatal Case of .....	642
Abstracts of Papers, read at Budapest International Medical Congress ....	678	Appendicitis, The Ochsner Treatment of .....	556
Acidum Pyrogallicum .....	754	Appendicitis in Pregnancy, Treatment of ..	50
Action of Arsenic on Red Blood Cells..	109	Arterio-sclerosis, Cerebral .....	229
Acute Appendicitis, The Pathologic Anatomy and Pathogenesis of .....	572	Arterio-sclerosis, Clinical Forms of ..	303
Acute Coryza, Treatment of .....	585	Arterio-sclerosis, Clinical Forms of ....	505
Acute Inversion of the Uterus .....	233	Arterio-sclerosis, including its Cardiac Form .....	680
Acute Tonsillitis, Treatment of .....	583	Arthrodesis .....	699
Address to Ex-Staff Toronto General Hospital .....	274	Aspects of Neurasthenia and Their Treatment .....	13
Adrenalin Chloride, The use of .....	346	Atrophic Cirrhosis of the Liver .....	109
Affections of the Eye, Nose, Throat, The Plasma Solution in .....	627	Atropine Methylbromide and Atropine Sulphate in Diabetes .....	648
Alcoholic Insanity .....	353	Atropine Rhinitis, including Ozena, The Treatment of .....	52
Amebic Dysentery by Ipecacuanha, Treatment of .....	696	Atropine Rhinitis and Ozena .....	54
Amputation of the Epiglottis in Laryngeal Tuberculosis .....	238	Atropine Rhinitis, The Treatment of..	53
Anesthetics, Use of, in Midwifery and Gynecology .....	690	Auditory Labyrinth, The Surgery of the .....	537
		Bacteria of Puerperal Uterus .....	234



	Page		Page
Bibliographic Treatise on the Antitoxic Properties of Renal Serum to the Cure of Uremia .....	396	Eczema in Children .....	360
Brain Tumors, Ocular Symptoms of ..	111	Edema of Pregnancy, The .....	445
Bromide Eruption .....	465	Employment of the Salicylates in Rheumatism .....	391
Bronchoscopy and Esophagoscopy, The Technique, Utility and Dangers ..	587	Emphysema, A Clinical Lecture on ..	295
Budapest Medical Clubs and the Semmelweis Cup, The .....	728	Endocarditis in Infancy .....	392
Calcium Lactate for Lymphatic Headache, Urticaria, etc. ....	575	Endometritis, Treatment of Puerperal ..	442
Calcium Salts .....	230	Epiglottitis, Amputation of the, in Laryngeal Tuberculosis .....	238
Canadian Association for the Prevention of Tuberculosis .....	457	Epilepsy .....	230
Cancer Problem, The .....	394	Esophagoscopy .....	240
Cancer of the Tongue—Radium Treatment .....	747	Esophageal Cases, Observations on ..	588
Carcinoma of the Lungs .....	576	Esophagus, Foreign Bodies in the ..	589
Carriers of Bacilli and Propagation of Typhoid Fever .....	577	Esophagoscopy .....	588
Case of Congenital Stridor .....	55	Euresol in Siborrhea .....	262
Case of Opium Poisoning, A .....	431	Excretions, Dilute Renal .....	588
Case of a Young Woman with a Baritone Voice .....	239	Exo-Cardial Murmur .....	44
Catheterization .....	399	Exophthalmic Goitre .....	228
Causes of Mortality in Cancer of the Uterus and its Treatment by Hysterectomy .....	444	Experiences with the Conjunctival and Cutaneous Tuberculin Tests .....	118
Cauterization of the Inferior Turbinal, A Fatality Subsequent to .....	53	Eye, Ear and Throat, Use of Adrenalin Chloride in special work on ..	346
Cecostomy and Coloclysis .....	387	Eye, Two Cases of Steel in the Interior of the, and their Successful Treatment .....	620
Cerebral Arterio-sclerosis .....	229	Feeding in Gastro-Intestinal Disturbances of Infants .....	400
Cerebral Hernias, The Diagnosis and Treatment of so-called .....	393	Fibroids of the Uterus and Pregnancy ..	691
Chronic Forms of Pancreatitis .....	679	Fibrolysin in Spondylarthritis Deformans .....	304
Chronic Stenosis of the Larynx .....	586	Foreign Bodies in the Esophagus ..	589
Circumcision and its Abuses .....	590	Fractures, Operative Treatment of Recent .....	480
Classification of the Commoner Diseases of the Digestive System of Infants .....	603	Function of the Frontal Lobes, The ..	689
Clinical Forms of Arterio-sclerosis, The .....	303	Functional Neurotic Disorders .....	399
Clinical Forms of Arterio-Sclerosis, The .....	505	Gangrene and Abscess, Pulmonary ..	77
Clinical Lecture on Haemoptysis and Emphysema .....	293	Gangrene of Arm, due to Thrombosis, Gumma of Testicle .....	616
Collargol Enemata in Septic Affections .....	310	Gastro-Intestinal Disturbances of Infants, Feeding in .....	400
Control of the Milk Supply in Large Towns .....	693	Gilliam Operation, The .....	49
Conservatism in Surgery of the Mandible .....	583	Glandulae Prostatæ Siccae .....	732
Corpora Lutea .....	732	Goitre, Exophthalmic .....	228
Correspondence .....	664 and 665	Grocco's Paravertebral .....	110
Creosote in Pulmonary Tuberculosis ..	647	Glycosuria, Observations and Remarks on .....	142
Cyclic Vomiting in Children .....	687	Haemoptysis and Emphysema, A Clinical Lecture on .....	295
Diagnosis of Laryngeal Cancer .....	677	Hay Fever, The Therapy of .....	41
Diagnosis of Lung Tumors, The .....	401	Heart Disease, The Treatment of ..	441
Diagnosis and Treatment of so-called Cerebral Hernias .....	393	Heart, The Treatment of Diseases of the, at Bad-Nauheim .....	1
Diagnosis and Treatment of Tumors within the Spinal Canal .....	683	Hebotomy or Symphysiotomy .....	34
Diagnosis and Therapeutics of Pyelitis in Pregnancy .....	442	Hemorrhage Following Quinsy .....	34
Diagnosis of Gastro-Duodenal Ulcerations .....	749	Hemophilia, The Surgical Aspects of ..	150
Dietetics: Its Application to the Treatment of Chronic Diseases .....	433	Henoch's Purpura and Intussusception ..	120
Differentiation of Abdominal Aortitis ..	369	Herniae, Peritoneal and other Intestinal .....	611
Digitalis in Heart Cases, Infusions of ..	369	Human Trypanosomiasis, Treatment of ..	694
Dilute Renal Excretions .....	511	Hygiene of the Nipple .....	44
Diseases of the Accessory Sinuses of the Nose in Scarlet Fever .....	236	Hygiene in Schools, The Teaching of ..	168
Disturbances of the Internal Secretions, Clinically Considered .....	700	Hyperidrosis .....	44
Diuretin in Stenocardia .....	208	Hypodermic Use of Mercury in Tuberculosis .....	302
Diuretin in Stenocardia .....	392	Hypertrophic Pachymeningitis .....	137
Doctor, The .....	771	Ice Test for Vascular Reactions .....	512
Dysmenorrhea, Treatment of .....	443	Improved Yellow Oxide of Mercury Ointment .....	116
Dysmenorrhea and Uterine Hemorrhages, Treatment of .....	233	Inaugural Lecture to the Section of Pediatrics .....	21
		Indications of Lumbar Anesthesia ..	735
		Indication of Labor at Term as a Matter of Routine .....	633
		Infantile Spinal Progressive Atrophy ..	731
		Influence of the Eye on the Ear, The Pathogenic .....	429
		Infusions of Digitalis in Heart Cases ..	369
		Inoculations for Acne .....	736
		Insanity, Alcoholic .....	353
		Intranasal Drainage of the Frontal Sinus .....	698



	Page		Page
Internal Treatment of Syphilis .....	220	Operative Treatment of Recent Frac-	
Invocation to Hippocrates .....	218	tures .....	480
Is Lying Ever Justifiable in Medical		Opium Poisoning, A Case of .....	431
Practice? .....	501	Order of St. John of Jerusalem in	
Itch, The .....	91	England, and its Work of Benefi-	
		cence .....	279
Jaundice Without Bile Pigments in the		Origin of Sex, The .....	684
Urine .....	390	Our Profession and the Laity in Pre-	
Joints and Bones, Surgery of the, with		ventive Medicine .....	331
Report of Original Research and			
Clinical Experience .....	696	Pancreatitis, Chronic Forms of .....	679
Labor, The use of Morphine and		Pachymeningitis, A Case of Cervical	
Scopolamine in .....	469	Hypertrophic .....	135
Larynx, Chronic Stenosis of the ....	586	Papillomata of the Larynx .....	353
Laryngology and Rhinology .....	51	Passage of a Piece of Tissue Through	
Larynx, Papillomata of the .....	553	the Eustachian Tube After an	
Laryngology, Retrospect of, 1908 ....	239	Operation for Adenoids .....	585
Larynx, Trachea and Esophagus, Some		Pathology of Atrophic Rhinitis with	
Experience in the Direct Examina-		Ozena, The .....	52
tion of .....	588	Pathology of Hereditary Diseases of	
Laryngeal Cancer, The Diagnosis of ..	678	the Nervous System .....	688
Laryngeal Spasm in the Adult .....	387	Pathogenesis of Oculoplasia and its Re-	
Laryngeal Tuberculosis, Treatment of,		lation with Normal Pregnancy,	
by Direct Sunlight .....	238	with Dropsy, and with the Kidney	
Latent Malignant Disease of the Stom-		of Pregnancy .....	308
ach .....	371	Pathogenic Influence of the Eye on the	
Life and Doctrine of Semmelweis ....	724	Eye .....	429
Life Insurance, Remarks on the Duties		Pathology of Lead Poisoning .....	700
of the Examiner in .....	289	Pediatrics, Inaugural Lecture to the	
Liver, Atrophic Cirrhosis of the ....	109	Section of .....	21
Lost Art of Prescribing, The .....	600	Perforation of Soft Palate Following	
Lung Tumors, The Diagnosis of ....	401	Severe Attack of Scarlet Fever ...	237
Lupus Erythematosus, Treatment of..	683	Perineum, Saving the .....	650
		Peritonitis, Treatment of Diffuse Free	
Malignant Disease .....	589	Progressive .....	686
Mandible, Conservatism in the Surgery		Physiologic Therapeutics .....	395
of the .....	583	Physical Basis of Secretion, with Espe-	
Medical Expert Testimony .....	564	cial Regard to Pressure .....	701
Medical Fee, The .....	263	Problems Still Unsettled, Requiring	
Medical Gymnastics in Myocardial Dis-		for Their Solution the Combined	
ease .....	300	Efforts of the Obstetrician, the	
Meningitis Cerebrospinal Epidemic in		Biochemist, and the Clinical Path-	
New York .....	697	ologist .....	649
Modern Laboratory Feeding, and the		Professional Interests .....	283
Wide Range of Resources which it		Plague in Japan .....	694
Provides .....	119	Plasma Solution in Affections of the	
Morphine and Scopolamine, The Use of		Eye, Nose and Throat .....	627
in Labor .....	469	Pneumococcic Influenza .....	535
Morphology of the Turbinals .....	236	Podophyllin, the Hepatic and Fever	
		Magic .....	271
Nasal Duct, Stricture of the, Its Treat-		Polycythemia .....	685
ment .....	116	Post-Grippal Complications .....	398
Needs of the University of Toronto, The		Postural Lung Dulness .....	440
Needs of the University of Toronto, The		Pregnancy Complicated by Presacral or	
Nervous System, The Pathology of		Postrectal Myoma, Cesarean Sec-	
Hereditary Diseases .....	688	tion, Saving Both Mother and Child	
Nervous and Psychical Manifestations		Pregnancy, The Edema of .....	445
of Arterio-sclerosis .....	704	Pregnancy and Phthisis .....	446
Neurasthenia and Their Treatment,		Primary Carcinoma of the Lungs .....	576
Some Aspects of .....	13	Proctologic Literature from May, 1908,	
Neurasthenia in General Practice .....	754	to May, 1909 .....	585
Neuritis .....	44	Pro-peritoneal and other Internal Hern-	
Neurotic Disorders, Functional .....	399	ia .....	611
Nitrous Oxid and Oxygen Anesthesia..	577	Pruritus Ani, Treatment of, with a	
Note on the Diagnosis Tallies of Dif-		Consideration of its Pathology and	
ferent Armes .....	699	Etiology .....	584
Notes on a Case of Neuritis .....	250	Pruritus Vulvae .....	736
Notes on a Recent Visit to Surgical		Puerperal Endometritis, Treatment of..	442
Clinics in Germany and Switzer-		Puerperal Infection, Some Notes on..	670
land .....	199	Puerperal Inversion of the Uterus ...	45
Obesity .....	685	Puerperium, Some Complications of	
Observations and Remarks on Glyco-		the, With a Report of a Case ....	341
suria .....	142	Pulmonary Gangrene and Abscess ..	77
Obstetrics During the Last Decade ...	98	Pulmonary Phthisis, The Sign of "Ta-	
Ochsner Treatment of Appendicitis,		potage" in .....	305
The .....	556	Pulmonary Tuberculosis .....	161
Ocular Conditions in a Case of Ju-		Pulmones Sicci .....	733
venile Tabes with Presentation of		Pus Tubes in the Male, Treatment by	
the Patient .....	623	Vasostomy .....	337
Ocular Symptoms of Brain Tumors ...	111	Pyelo-Nephritis in Pregnancy .....	69
Ontario Experience of Vaccination ...	510	Pyelitis in Pregnancy, Diagnosis and	
		Therapeutics of .....	442



	Page		Page
Radium and Its Action in Connection With Certain Diseases of the Skin: .....	739	Tabes, A Case of Juvenile .....	625
Rapid Dilatation of the Cervix .....	681	Teaching of Hygiene in Schools, The .....	138
Ready and Effective Sterilization of the Skin Surface Applicable to Emergency Work .....	389	Technical Points Which Furnish the Best Cosmetic Functional and Curative Results in Mastoid Operations .....	168
Recent Progress in the Clinical Study of the Evolution of Syphilis .....	689	Therapy of Hay Fever, The .....	130
Relation of Medicine to other Professions .....	602	Theory of Vision, The .....	695
Relation of the General Hospital to the Community .....	671	Thyro-Lingual Sinus in a Boy, aged fourteen .....	237
Relative Value of the Finger and the Sphygmomanometer in Estimating Blood Pressure .....	386	Thyroid Gland—Anatomic, Physiologic, Pathologic Therapeutic Factors, The .....	768
Remarks on the Duties of the Medical Examiner in Life Insurance .....	289	Tonsillitis, Treatment of Acute .....	586
Reminiscences of two of Toronto's Principal Medical Men in the Early Years of the City's History .....	25	Toronto General Hospital .....	130
Renal Calculus in a Child, Case of .....	118	Tracheoscopy .....	588
Respiratory Symptoms of Serious Import, Two .....	423	Treatment of Aneurysm of Aorta .....	598
Retrospect of Laryngology for 1908 .....	239	Treatment of Diffuse, Free Progressive Peritonitis .....	686
Review of Proctologic Literature, from May, 1908, to May, 1909 .....	581	Treatment of Diseases of the Heart at Bad-Nauheim, with Cases .....	1
Rheumatism. The Employment of the Salicylates .....	391	Treatment of Dysmenorrhea .....	443
Rules for Patients of the Henry Phipps' Institute for the Study, Treatment and Prevention of Tuberculosis .....	737	Treatment of Dysmenorrhea and Uterine Hemorrhages .....	233
Scarlet Fever, Diseases of the Accessory Sinuses of the Nose in .....	236	Treatment of Heart Disease .....	441
Science of Clinical Medicine, The .....	579	Treatment of Pruritus Ani, with a Consideration of its Pathology and Etiology .....	584
Septic Affections, Collargol Enemata in Sign of "Tapotage" in Pulmonary Phthisis .....	305	Treatment of Syphilis, On the .....	176
Serum Therapy and Vaccination, Treatment of Acute Articular Rheumatism .....	702	Tubal Mole .....	306
Sixteenth International Congress of Medicine at Budapest .....	710	Tuberculosis in Armies .....	698
Spasmodic Type of Syringomyelia, The. Some Complications of the Puerperium, with a Report of a Case .....	340	Tuberculosis, The Canadian Association for the Prevention of .....	457
Steel in the Interior of the Eye .....	620	Tuberculosis, Creosote in Pulmonary .....	647
Stenocardia, Diuretin in .....	228	Tuberculosis, Hypodermic use of Mercury in .....	302
Stomach, Latent Malignant Disease of the .....	371	Tuberculosis, Pulmonary .....	161
Stomach Troubles, Uricacidemia in Relation to .....	417	Two Respiratory Symptoms of Serious Import .....	423
Stricture of the Nasal Duct, Its Treatment .....	116	University of Toronto, The Needs of the .....	38
Study of Medicine, The University in Relation to the .....	265	University of Toronto, The Needs of the .....	105
Study of Medicine for Women .....	493	University in Relation to the Study of Medicine, The .....	265
Summer-time is Sprain-time .....	398	Uremia, Treatise on the Antitoxic Properties of Renal Serum to the Cure of .....	396
Surgery of the Joints and Bones .....	696	Uricacidemia in Relation to Stomach Troubles .....	417
Surgery of the Auditory Labyrinth, The .....	537	Urticaria .....	735
Surgical Aspects of Hemophilia, The .....	150	Use of Anesthetics in Midwifery and Gynecology .....	690
Surgical Clinics in Germany and Switzerland .....	199	Uterus, Acute Inversion of the .....	233
Surgical Suggestions .....	260	Uterus, Bacteria of Puerperal .....	234
Syphilis .....	231	Uterus, Causes of Mortality in Cancer of the .....	444
Syphilis, Recent Progress in the Clinical Study of the Evolution of .....	689	Uterine Conditions Demanding or Justifying the use of the Curette .....	549
		Uterus and Pregnancy, Fibroids of the .....	691
		Uterus, Puerperal Inversion of the .....	45
		Vaccination, Ontario Experience of .....	510
		Vascular Reactions, Ice Test for .....	512
		Veronal-Sodium as Hypnotic .....	735
		Villus Tumor and Rupture of the Bladder .....	544



# The Canadian Practitioner and Review.

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No. 1

## Original Communications.

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### THE TREATMENT OF DISEASES OF THE HEART AT BAD-NAUHEIM, WITH CASES.

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TORONTO.

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After a visit to Bad-Nauheim, in 1907, and being impressed with the results obtained, I published a communication in which I expressed an enthusiasm for the place, and Prof. Schott's methods in the treatment of chronic diseases of the heart. I revisited Bad-Nauheim (May and June, 1908), and through the kindness of Prof. Schott again had full opportunities afforded me of an investigation into the methods in vogue, and was permitted to keep under observation a large number of patients from various countries and of various nationalities undergoing treatment.

Bad-Nauheim, a well-known and ideal health resort in Germany, visited by many people suffering from heart maladies, is situated in the Grand Duchy of Hesse, a few miles from Frankfort-on-the-Main. It is the last link in the chain of watering places which winds along the valley so rich in springs between Taunus and Vogelsburg, and owing to the copiousness and warmth of its waters, occupies a prominent place among the health resorts. The proper history of Bad-Nauheim dates from the first of July, 1835, when the newspapers announced the opening of the Brine Bath establishment, which consisted of a solid building surrounded by gardens, with nine bath



rooms. A second bath establishment was opened twenty years later, another one was added in 1866, and additions have been made from time to time until at present there are 269 bath-rooms, in addition to 277 baths for public use, and the increasing popularity and success necessitates further extensions.

The form of treatment which was introduced through the genius of the Doctors Schott (Augustus and Theodor), was a radical innovation. To give the reasons why chronic heart diseases recovered under the thermal baths and the Sprudel effervescing baths has not been entirely successfully accomplished. Three years ago the radio-activity of the waters was established by experimentation, and we are forced to believe what we have seen without being able to give evidence satisfactory to all of the faith within us, but the results observed would appear to justify our belief in the effectiveness of the natural and artificial baths in certain forms of functional, as well as organic, diseases of the heart.

There has been much discussion concerning the value of the baths at Nauheim, and the efficacy of the artificial baths, and there are many who have asserted that equally good results may be obtained from digitalis and rest. Victor Hugo remarked that "the learned pedant who laughs at the possible comes very near being the idiot," and Francois Arago writes that "he who pronounces anything to be 'impossible,' outside of the field of pure mathematics, is wanting in prudence." One prominent teacher who has published a series of clinical lectures, says, "I must confess, I read with some incredulity the reports of the rapid diminution of cardiac dilatation under this treatment, and I entertain no doubt that increased expansion of the lungs is the main factor in the alterations in the percussion area of the heart." But, he adds, however, that he had made only one visit to Nauheim, and had no adequate opportunity of personally watching the results of the methods there. Dr. J. McGregor Robertson, of Glasgow, who has employed the artificial baths for some years, and the number which he has caused to be given mounts up to several thousand, writes: "So much do I esteem the treatment, whether with the natural waters at Nauheim itself, or with the artificial waters in the patient's own house at home, that there are certain cases I should not consider to have justice done to them, unless, if it were at all possible, they had had the benefit of this treatment in the one form or the other."

While many groups of cardiac cases are cured or improved by the procedure, special attention has been directed to the



dilated heart, whether acute, due to overstrain, or from other causes.

Here I wish to refer to an important paper on the question of Acute Overstrain of the Heart, read by Prof. Schott, before the Congress of Internal Medicine, in Vienna, on April 7th, 1908, when he referred to his communication before the Ninth Congress, held in 1890, in which he mentioned that numerous experiments had led him to the conclusion that severe bodily overstrain, sufficient to produce marked dyspnea, caused acute heart dilatation. In 1897, on a re-examination of the findings by the radiograph, and with the use of the barium-platin-cyanide shield, he had shown that his earlier examinations with the former percussion method, and the percussion of Dr. August Schott, were correct. His observations coincide with those of Peacock, Clifford Albutt, Fraentzel, Leyden, and others. After the exhaustive observations on sportsmen, like cyclists and skirunners, by Mendelsohn, and also by Albu and Henschen, who all found evidence of heart dilatation, it seemed for a time to be an established fact in the pathology of the heart, that the chronic heart overstrain originated only from a summation of abnormally severe actions of the muscles. But soon old doubts crept in, especially after the researches made by means of orthodiagrams, by Moritz, Aug, Hoffman and de la Camp, who stated that they found no dilatation, or only unimportant changes of the heart. Prof. Schott was able last winter to renew his researches, and was able to fully confirm his opinion previously expressed. He emphasized particularly the fact that he had not only found an expansion of the heart, but the heart oval in form before exertion dilated and took on a more round form, following active muscular effort. The left side of the heart which before severe over-exertion had not reached the mammillary line, over-reached it after, and the change in form stands confirmed by other recent observations which have been made.

In his final remarks, he pointed out that the heart is luckily not an organ answering to any mechanical or other irritation at once with marked change in size. It is so constructed that it forms the most perfect motor which is known, and it is able to answer with a maximum of force to a minimum of irritation. It possesses, besides, the property of adapting itself to changing conditions. The heart muscle and the vascular system have compensations of various kinds, and it is due to these that the limitations of the dilatation of the sound heart in a muscular man vary so greatly. We may say in other words that bodily



overstrain forces to the point of strong palpitation of the heart and severe dyspnea leads finally to acute dilatation of the heart.

The object of the Schott treatment is to enable a heart that is unable to expel all its contents, to empty itself more completely. The nutrition of the heart improves as dilatation decreases and the cutaneous circulation becomes more active.

It has been frequently stated that the Nauheim baths, natural and artificial, may be of service in certain functional disturbances of the heart, but are ineffective when there is an actually diseased condition of the myocardium, and their administration is absolutely unwarranted. This, however, I have found to be incorrect.

I desire to illustrate by cases various cardiac functional disturbances and diseased conditions which came under my personal observation this year when visiting Bad-Nauheim, and which responded favorably to the treatment.

*Case No. 1.*—Dilated Heart, Mr. G., of New Jersey, aged 47, weight 152. Architect.

He was treated in his own city for nervous dyspepsia, and when in Europe, in 1907, consulted Prof. Schott, at Frankfort, as the Nauheim season had closed. He was suffering from a weak and dilated heart. A course of artificial carbonated baths extending over a period of two weeks, associated with the resistance movements and massage, greatly improved him, and he came to America in comparative comfort.

He returned to Germany in May, 1908, for a course of baths at Nauheim. The history which he gave was not an unusual one. Prior to his breakdown he had what his local doctor called la grippe on three occasions, which the doctor said affected nervously the heart. He was a hard mental worker, his recreation being tennis playing and bicycle riding and moderately long walks; generally abstemious in his eating, very moderate in his drinking, and smoked to the extent of two or three cigars daily.

Under treatment the area of heart dullness has decreased, and the pulse has become full, regular and steady.

*Case No. 2.*—Dilated Heart. Mr. D., of Santa Barbara, Cal. Aged 45, spare in figure and of moderate height.

Last year when travelling for pleasure and to recuperate from an enfeeblement which occurred following la grippe five years previously, he was taken with a severe weakness, and a marked edema of the feet and legs when in Stockholm, and consulted Dr. Zander, who diagnosed a dilated heart. After a course of



artificial carbonated baths he was much improved, and was able to travel to Nauheim to take the natural baths. He put himself under the care of a known doctor at this watering place. He was ordered sprudel and thermal baths, and also strohm baths three days in succession and one day's rest. After eighteen baths he was told that he had had baths enough, and that he might go home. The edema of the legs had greatly increased, and he had lost some flesh, the heart was much dilated, he suffered from tachycardia and arrhythmia and felt very weak.

Prof. Theodore Schott was then consulted, and it was found that the bathing had been overdone, and given without proper regard to the unfavorable condition of the heart. No more baths were given. The limbs were bandaged, and under massage and resistance movements he improved so that he was able to return to San Francisco for the winter.

He returned to Nauheim in May, 1908, and under the natural baths and a resumption of the massage and resistance exercises the swelling which had become apparent during the winter entirely disappeared; he could do without the bandages, and though his heart is still weak, nervous and irregular, I observed a marked improvement in his condition during the time he was under my observation.

He gave a very interesting history of an earlier nervous breakdown, when he says the doctor tried all manner of remedies and put him on thyroid tablets, which he continued to use for four years, three tablets daily. His ordinary weight was 134, and at the present time his weight is about 157.

This case particularly exemplifies the beneficial results of artificial baths; the necessity of fully understanding the action of the natural waters before the course of treatment is prescribed, and the interesting feature of a heart which might be said to be atrophied through the continuance and injudicious use of thyroid tablets.

*Case No. 3.*—Senile, fatty, dilated heart, with myocarditis. Mr. H., aged 60. Height, 5.8; weight, 204.

He had lived much abroad and had had experiences in India, followed by enlargement of the liver and spleen. He was accustomed to the usual sports of fishing, shooting and long tramps; smoked three or four cigars a day and indulged moderately in stimulants. Four years ago had difficulty in walking uphill, at the same time suffered from indigestion. He consulted a physician at Cannes, France, who diagnosed a weak, fatty and dilated heart. Under rest and the daily use



of doses of strychnine, with a moderate dietary, he improved. On returning to England he consulted three well-known physicians, and took the artificial baths, and in the spring of 1908 visited Nauheim, being advised to do so by a London physician. With the natural baths, massage and resistance movements, in two weeks the heart resumed its natural beating and gained tone. When he reached Nauheim there was a remittance of every two or three beats, and now after four weeks' treatment, the rate is 72, and almost regular.

*Case No. 4.*—Fatty degeneration of the Heart. G. H., Toronto. Weight, 260 pounds.

He was a hard worker and a heavy smoker. Under advice he left on 22nd April, 1908, for Nauheim, to be under the care of Prof. Schott. He was then in a highly distressed condition, and scarcely able to walk.

In four weeks time, after taking the baths and resistance movements, he lost 32 pounds, and was able to take long walks, and commenced to again enjoy health. The pulse dropped to 64, full and steady, and his breathing easy. The heart sounds are still somewhat mixed and the apex beat difficult to discern. On arriving at Nauheim, he discontinued the use of tobacco and alcohol, and his diet was regulated according to the rules suitable to his case.

*Case No. 5.*—Dilated Heart, Myocarditis with fatty degeneration. Mr. M., London, Eng. Aged 64.

Gave a brief history of having had a shock through the death of his wife. One evening, seven years ago, he took a short train trip to his place of residence just outside of London, and on arriving at his destination he started to walk, accompanied by his son, but only went a hundred yards or so when he was overcome with weakness and was unable to proceed further. He was under professional care for some months when Dr. Steele, of Manchester, was consulted, and diagnosed the case as a dilated heart and advised cardiac tonics.

In the spring, he visited Nauheim, and recuperated rapidly. He has visited this watering place annually since his first attack and expresses himself as always benefited by the baths. Pulse rate 70 and regular, apex in mammillary line. He has not had an attack of heart dilatation for seven years, and no medicine during that time.

*Case No. 6.*—Dilated left heart with weak left ventricular wall and general malnutrition through poor circulation. Mr. M., Surgeon, aged 45.

In the spring of 1907 had a slight attack of influenza, from which he slowly recovered. Later, when in bed one morning he felt a fluttering in the heart region, and examining his pulse found that it was intermittent and weak. He sent for his physician, who kept him in bed a month. After he recovered he went out fishing one day and felt considerable weakness on exertion, and the symptoms returned. He consulted several London consultants, who prescribed various cardiac specifics, and finally one ordered belladonna, which took away his last pleasure in life, the power of reading. Later a London physician ordered artificial Nauheim baths, as the season was not open, and then, acting upon his advice, he later went to Nauheim to see Prof. Schott, and remained with him for seven weeks, until the close of the season. He also greatly improved under baths and the resistance treatment. In May, 1908, he returned to Nauheim, and after two days' bathing again rallied. Examination disclosed a rapid pulse of fair volume, a slight systolic mitral murmur, and apex in mammillary line.

His routine of life while at Nauheim was to rise at 6 a.m., go to the spring and drink a glass of saline (Karlsbrumen) water, walk around until 8 o'clock while listening to the band music; then return to the Hotel for breakfast; later, about ten o'clock, he took a bath, followed by a rest of an hour; a lunch, moderate in quantity; resistance exercises at 2 o'clock; attended a concert on the Terrace at 4; dined at 7; attended another concert at 8, and went to bed at 10 o'clock.

Mr. M., being a surgeon of wide experience, his evidence has much of weight in it, and while he looks upon drugs as a present help in time of trouble, he regards them as non-curative, and pins his faith to the Schott treatment at Nauheim, and if that is impossible or impracticable, he considers the artificial baths with the resistance movements as invaluable.

*Case No. 7.*—Endocarditis, mitral lesion with dilatation. Miss M., aged 16, of Glasgow.

Gave history of an acute influenza attack seven years ago which became associated with rheumatism complicated by acute endocarditis and marked mitral lesion. After the subsidence of the attack the artificial Nauheim baths were administered and marked improvement took place, but it did not appear expedient at that time that she should visit Nauheim.

In 1906, during the months of April, May, June and July, she was again confined to her bed with a renewed attack, and practically during the whole winter of 1906-7 she remained



in bed. During this period she was without medicine, and permitted a fairly full diet.

She came to Nauheim in 1907 in a very weak and anemic condition, and improved markedly under the baths. I saw her very shortly after her arrival in May, 1908, and before she had taken any baths, and several days later made a re-examination, and found an increased arterial volume (after three baths the pulse was much fuller); a marked diminution of dulness over the cardiac area and the apex beat less diffused.

As Professor McGregor Robertson, of Glasgow, had the case under his observation, I wrote to him, and received a courteous reply in which he mentioned that the patient had suffered from acute rheumatism, and had also had a pleurisy with effusion. "The mitral valve was seriously involved and the regurgitant murmur loud and harsh. Dilation of the left ventricle ensued owing to compensation failing to be established, and the dilatation passed backwards to the left auricle and slightly affected the right ventricle. It was the serious threat of cardiac failure which these things portended that caused me to urge her parents, at whatever sacrifice, to take her to Nauheim.

"My experience goes back now for fifteen years, and I felt quite certain as to the nature of the result that would be obtained—the tone of the cardiac muscle has been restored, the dilatation has been largely, if not wholly, reduced, and compensation has been established.

"It is too large a question to discuss in a letter to what extent valvular changes can be repaired, but I myself have had no doubt for many years that the old view that valves once damaged can not be repaired to any degree is erroneous."

*Case No. 8.*—Influenza. Dilated heart. Dr. T., aged 56. Had been in military service and was Col. Surgeon.

In December, 1906, had a severe influenza, and after the fever subsided the pulse was intermittent every seven beats. He said the doctor came and put on a long face, and told him that all the valves were leaking, and the heart was dilated. He was kept in bed for three weeks. Then he consulted Sir T. Barlow, who sent him to the Isle of Wight, where improvement took place. After this he went to the South of France, Mentone and Nice, where, during the month of March, he suffered from a great mental depression, returned to England and spent six weeks at Brighton, then consulted Dr. Bensley Thorne, who advised Nauheim. He found the heart enlarged, the apex beat two inches outside the nipple line, and the heart sounds hard to

hear. He was again mentally much depressed. Took baths for six weeks, no massage, no after cure, and rapidly improved. He returned to professional work until November, 1907, when he retired from the army. He wintered in Corsica and Italy, no drugs were taken and no massage or resistance movements. He returned to Nauheim on the 27th of May, and Prof. Schott thought he had better have some more baths.

Under examination, on June 8th, I found the heart sounds clear though not strong; the apex beat in normal position; he was in good spirits and had a feeling of health and well being.

*Case No. 9.*—Dilated heart, marked nervous symptoms. Dr. S. de Nux, aged 30, of New Orleans.

He graduated in Medicine and had been in practice for several years under heavy work. Had a breakdown, partly nervous and with some heart dilatation. Suffered greatly from dyspnea, pulse averaged 120. Was so weak he could scarcely walk two blocks, and had continual pain in the region of the heart with palpitation for two or three days. This appeared to be aggravated by flatulence, dyspepsia and extreme constipation. Stomach showed some dilatation, and the liver was enlarged. He was troubled with sighing respirations. At times he had to remain in bed. During the period of this illness he quickly lost sixteen pounds. He relinquished his practice and consulted many physicians, who entertained but little hope of his recovery. He took a complete rest in Colorado, and in the spring of 1907 went to the South of France, but received little benefit. After leaving the South of France he went to Nauheim, July 18th, 1907, and was ordered by Prof. Schott to take at the beginning a bath every other day for two weeks and then a rest, and also the resistance movements, but no massage; four weeks of baths and exercise treatment, then two weeks as an after cure in Switzerland, followed by four weeks again in Nauheim, and later four weeks in the South of France, and on returning to America was able to do moderate work. During the winter and in March and April his village and country practice was very heavy. When at home he continued the resistance exercise treatment, which usually made the volume of the pulse fuller and caused a lessening of his pulse six or eight beats per minute.

The first of June, 1908, he returned to Nauheim, when cardiac dilatation almost disappeared; the area of dullness on percussion one and one-half inches smaller than last year, absence of murmur, and in all respects greatly improved. The depressing symptoms also disappeared.



Dr. J. A. Storck, of New Orleans, who was consulted by Dr. S. de Nux, wrote me, that when he first saw him there was very considerable dilatation of the heart, and Dr. Geo. S. Bel, also of New Orleans, wrote, "I have seen Dr. S. de Nux only once since his return. After a physical examination I found his heart in a normal condition; the functional disturbance has entirely disappeared, and his general condition, especially his nervous system, greatly improved. The Doctor stated that he would not call again unless he felt a return of the trouble. Up to this date I have not seen him, so he must be o. k."

*Case No. 10.*—Mrs. Joseph E., from N.J., a lady of 70 years of age. Through the kindness of Prof. Theodore Schott I was enabled to make a careful examination on several occasions, and also secured a more or less complete history of her condition, and with the assistance of the reports of physicians who had treated her, was able to form a better judgment as to the efficacy of Professor Schott's treatment.

Many years ago she was under the care of Prof. De Costa, of Philadelphia, having suffered always more or less from irregular cardiac conditions. In 1906 she had what she calls a severe heart attack when at the seaside, and returned to her home, where for many weeks she was prostrated, lying in bed perfectly helpless, and unable practically to make any physical exertion. She was then suffering from a severe attack of tachycardia with some gastric and intestinal flatulence, and the doctor who then saw her, Dr. A. H. L., writes: "She was quite nervous, and her digestion, especially of stomach, very poor. On strict nitrogenous diet a little better, yet she would have the attacks. Examination showed senile changes in blood vessels. She had myocarditis, hypertrophy, some dilatation of ventricle, with undoubtedly some atheroma of the cardiac vessels. After her first visit to Prof. T. Schott she came home with marked improvement."

To Dr. F. N. R., who is now practising in Monrovia, Cal., I am indebted for the following remarks: "I cannot give you date of first visit but approximately October, 1906. Suffering from sterno-cardial attacks of pain, tachycardia (extreme), cardiac asthma and fear. Arteries fibrotic markedly.

*Examination of Heart.*—Marked impulse felt over whole area. Apex beat in sixth interspace outside nipple line, about half inch. Systolic bruit at apex, markedly impure pulmonary first and second sound. Aortic, first sound double with murmur, second, impure.

Urine Examination.—Diminished quantity. Some hyaline casts. Albumen varying from day to day. Sometimes absent. Some edema of the feet and legs, especially the ankles.

Diagnosis.—General arterio-sclerosis (so called interstitial, nephritis, dilatation of the heart with faulty compensation.

Treatment.—Absolute rest in bed. Strychnine sulphate in increasing doses. (Morphine in minute doses to quiet pain and allay nervousness.)

Diet.—Nourishing. Eggs (raw), albumen water, meat juice, broths, milk. Gradually increased and vegetables added, as bread, potatoes, etc. First the small quantities at frequent intervals.

Result.—Marked improvement in course of time, but very slow. Gradual contraction of area of cardiac dullness, and increase in quantity of urine, disappearance of edema, asthma and attacks of tachycardia and sterno-cardial pain. Graduated exercise advised in the shape of walks (only a few steps at first), and advised her to go to Prof. Schott early in the spring of 1907. I gave her a letter of introduction, as I knew it would do her good there. I worked with him in 1899, and knew she needed his good care and advice. I was extremely interested and worked hard with the case. There was little to work on but with her co-operation, I am happy to say, and the grace of the Creator, and Dr. Schott's able advice, I believe she was even more improved than when I last saw her."

On the 27th of May, 1907, she came to Nauheim, where she remained nine weeks and had thirty-one baths. She had occasionally bad seizures during her stay in Nauheim, but on one occasion only was digitalin administered. She spent five weeks in Switzerland as an after cure, and returned to America in November, and her physician, Dr. R., was only called in to prescribe for two slight attacks until her return to Nauheim in May, 1908. She told me that she had greatly improved so far. She was able to take a fairly long walk, and in all respects appeared to be regaining ground since the recommencement of the baths.

This case greatly impressed me, because there was very marked arterio-sclerosis, myocarditis, and murmurs to be heard both in the mitral and aortic areas.

*Case No. 11.*—Myocarditis following influenza. Mitral murmur with relative insufficiency. Judge B., Boston, Mass., aged 54.

In 1889 was accepted by two insurance companies, and re-



jected by two on account of heart murmur. In 1904 he took walks in the Switzerland passes at an elevation of 8,000 feet, and suffered no serious inconvenience, though at times he had distress in the cardiac region, possibly due to gas in the stomach, as he was a sufferer from indigestion. He gave a history of rheumatism and swelling of the feet, no dyspnea. In 1905 he came to Europe when he suffered from dyspepsia. In 1906 he had rheumatism and was under treatment with his local physician, returned to Europe in 1907, and when on the Heidelberg mountain experienced some distress in breathing. At this time he says there was some wheezing of the lungs.

He read an article on Nauheim and decided to visit the place, because his condition had not improved and he continued to grow weaker. While at Nauheim, under the care of Prof. Schott, he had fifty-two baths and resistance movements with a vacation interval from July 1st to 21st, in Switzerland. When he came to Nauheim the apex beat was two inches outside of the nipple line. After treatment the heart was found to be contracted about two inches, and in normal position. In 1908 he returned to Nauheim. June 1st, I made a careful examination and found that he was suffering from mitral regurgitation and aortic stenosis.

Even after a severe examination the pulse only rose to 90. This gentleman, erudite, learned in the law, accustomed to sifting evidence, gives unhesitating testimony in favor of the baths as prescribed by Prof. Schott and administered at Bad-Nauheim.

It is, of course, quite impossible for all patients suffering from such forms of heart trouble as would be benefited by the natural baths to visit Nauheim, and consequently of late years many able practitioners have made use of the artificial brine baths with or without free carbonic dioxide, and sometimes combined with muscular exercises. The effect of the two procedures (baths and resistance movements) is very similar. From the cases I have cited I think it is quite established that the baths and resistance exercise are capable of notably diminishing the area of the cardiac dullness and at the same time producing a pulse more normal in character.

50 College St.

## SOME ASPECTS OF NEURASTHENIA AND THEIR TREATMENT.\*

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BY DR. A. T. HOBBS,

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The subject of neurasthenia presents a wide field for consideration and discussion. It is impossible within the limits of an address like this to more than skim over a few of the salient features of this widespread disease. The never-ending and ever-changing manifestations of nerve exhaustion are bewildering alike to the specialist and general practitioner. The insane revelry of the various organs, including the nervous system, produces a gallery of pictures of an infinite variety of shading. You may examine organ after organ, investigate the stomach contents with your burette, analyze the urine with an urinometer and an ureometer, take smears of the sputum, count the blood corpuscles and test the hemoglobin and manipulate the reflexes, and find no serious lesion, yet this apparent negative result offers positively no proof that you have under observation a typical case of neurasthenia.

To what may we attribute this extraordinary condition? The intense strenuousness of this competitive age, the constant increasing indulgence in alcohol, and the anxiety of the foolish parent to have his fast-growing child eclipse some other parent's prodigy in school or college, are the chief causative factors in this neurosis.

Heredity plays an important part in the preparation of the ground soil for the cultivation of these noxious neurotic weeds. An alcoholic parent, a syphilitic progenitor, a restless, nervous mother, an epileptic brother, or an insane sister will be found somewhere perched on the family tree if diligently sought for in at least 60 per cent. of all histories of neurasthenia. Can you wonder why "the sins of the father are visited upon the children even unto the third and fourth generation"? A magazine full of neurotic powder may lie dormant for years until exposed to the match of the worry of business, or domestic affairs, or numerous spree, or some indiscretion, when it explodes.

What does the neurasthenic complain of? Listen to his story carefully, however prolix he may be; do not get impatient with

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\* Read before the St. Thomas Medical Association, on November 6, 1908.



the tedious recitation of his hundred and one ailments; and above all do not laugh at, or make light of, any absurd statement; neither lay too much stress upon any one symptom. He is supersensitive; a perfect barometer of restlessness. He may have already visited several physicians, who did not consider his case as serious as he thought they should. It is notorious that many of them wander from one doctor's office to another. I admitted one patient to the Homewood who had run the gauntlet of nineteen physicians. Take an interest in him, make full notes of his case, so as to be familiar with all of his complaints. Overhaul him thoroughly, so as to eliminate any possibility of a lurking organic lesion.

In brief, what is his story? "I am tired, I am weak." This feeling of exhaustion is always well marked; it makes him irritable and easily discouraged. It is this feeling of lassitude that induced him to give up his occupation. "I have a numb feeling in my head, a headache." This constant symptom worries him very much. His head appears to him as if it is in a vise. He fears he is going insane; thoughts of suicide will arise in his mind; he will talk about it to his friends and intensify their fears for him. "My eyes are weak, they have boring pains in them, and there is something wrong with my ears." This is not uncommon, and will often lead him to consult an oculist, who finds no marked lesion. "I cannot settle my mind on anything." This difficulty of consecutive thought and action, and inability to make a decision, is very characteristic, and makes him restless and discontented with himself and everybody else. "I have an all-gone feeling in my stomach, and my food does me no good." He may have some gaseous distention, and some abdominal sensitiveness on pressure, but it in no way accounts for his woebegone appearance. The liver may be slightly engorged, and constipation may be a habit. He may have arrived at the hypochondriacal stage, when he is sure that nothing passes through him. He is much distressed. "I do not sleep, and I feel stupid." This is often a dominating feature of his case. He cannot go to sleep until very late, and he wakes up early. He tosses around in bed, thinking and worrying as to what is going to happen to him; morbid fear possesses him; his broken sleep is unrefreshing; he loses weight; dark circles show themselves around his eyes; he moves along in a state of partial stupor; the universe looks blue to him. His own mental picture throws deep shadows; there is no silver lining.

"There is something wrong with my heart; listen to it." This feeling of pseudo-palpitation is enhanced at night when

alone with his thoughts, his sleeplessness and his intense nervousness. His senses are doubly acute; he hears and feels his heart beat; his cup of misery is full. These and many other stigmata complete a picture absurd to the physician because of the absence of disease; pitiful to the patient because of the deadly reality of all these inexplicable pranks of the erratic action of the whole nervous system.

What can we do for him? Psychotherapy plays an important part. You must quietly impress upon him that he is going to get well. You may have to reassure him time and again. Do not get impatient with him. Instil into his mind the axiom that "he will not feel well until he is well." Encourage him every time you see him, and present to him always a cheerful front. Outline his treatment carefully and in detail. You will usually find him punctilious as to its observance. Warn him that you may from time to time make a change in his treatment as he improves. His case naturally will take time; tell him so.

As to diet. Often he will eat a large meal perfunctorily, bolting his food. As a rule he does not drink enough. This is wrong. He should have a breakfast of fruit, cereal (oatmeal or whole wheat preferred), a soft-boiled egg, toast, a glass or two of milk; at 10.30 a light lunch of a glass or two of milk, or an egg-nog and a soda biscuit. At 1 p.m. a limited and an absolutely plain dinner: small quantity of meat (beef or chicken preferred) and a potato—drink milk or milk and water—custard or rice, or a light confection. Repeat the lunch at 4, and at 6.30 a light supper with a cup of weak tea or milk. On retiring a glass of hot milk. Variation of these diets will of a necessity be made from time to time, bearing in mind their easy digestibility.

Tonics have their value, especially combinations of strychnine and arsenic. They aid other remedies to dispel the gloom, and improve the quality of the blood. In advancing age the addition of phosphorus will afford material aid. If the extremities are habitually cold, add digitalis in small doses to any of these tonics.

The treatment of constipation requires care. Mild laxatives may be used. Purgatives are often harmful. A glass of hot water, or of mineral water, should be taken before breakfast. If these are ineffectual, abdominal massage ought to be applied. There are several ways of doing this. The well kneading of the colon in the recumbent position needs an operator to make it successful. Auto-massage can be done by pressing the fingers deeply on the relaxed muscles of the abdomen over the fecal



end of the colon. Breathe deeply and resist firmly the inspiration. Follow the colon in this way around to its sigmoid flexure. The patient should be instructed to do this daily lying on his back with his knees drawn up.

Another method we adopt in our hydrotherapeutic room is to apply a jet douche at temperature of 100 deg. with the force of one to one and a half atmospheres in a circular method all over the abdomen. Still another way is to stand the patient over a perineal hot douche, and let the water strike the anal orifice for two minutes at 100 deg.

It should not be forgotten that suitable dieting will do much towards the relief of the constipated habit. Enemas may have to be resorted to in extreme cases, but should not be continued as a routine treatment. Strong cathartics are harmful.

Rest in bed until noon during the early treatment, especially when general weakness is complained of. It is an effective hand-aid to other methods in controlling both the restlessness and fatigue so manifest in the neurasthenic.

Any exercise advised should be mainly loafing in the open air, moving along at two or three miles an hour gait, accompanied by a cheerful nurse. He may participate in light games like bowling on the green, or billiards, just so long as it does not fatigue him. Later on a light occupation, or exercises in a gymnasium, may be followed.

Do not specifically treat, or even discuss, his headaches, or any particular symptom. Tell him they are only part of the whole depreciated condition, and will disappear as he improves in health. Headache tablets and powders do him decided harm, and only postpone his recovery.

The management of insomnia requires judicious handling. The bed-room should be well ventilated. He should retire at a regular hour. Try the hot tub-bath for ten minutes before going to bed, and when in bed he should be given a hot glass of milk, or a glass of cold milk with half a teaspoonful tincture of capsicum. Give him to understand that four hours' natural sleep is better than eight hours' drugged sleep. If these simple measures fail the cold wet pack may be tried, or a small quantity of bromide an hour before retiring.

All that you have done may be unavailing, and a persistent sleeplessness still exists. You have to do something to overcome this. It is imperative to break the run of insomnia. You have at your disposal an array of hypnotics appalling to the novice in medicine. From experience we have eliminated them all from our category, with the exception of two, viz., medinal and

veronal. First try veronal in doses of 5 to 10 grains. If no success follows the administration of veronal, then 7 to 10 grains of medinal will produce sleep in the most obstinate case, with little or no bad after effects. It must always be given dissolved in water. It may be given hypodermically.

Unfortunately, your patient will quickly form the habit of depending upon the hypnotics to produce sleep. You must gradually reduce the drug until about one-half of the dose is being taken. We then adopt a method that has been successful in getting him to abandon the medicine. It is this: Persuade your patient to leave the powder and a glass of water on a chair beside his bed. If he fails to woo tired nature's sweet restorer in an hour or so he is advised to take his medicine. You will, however, invariably find this plan successful. Your patient's fears for a sleepless night are overcome by the knowledge that he has the remedy at his disposal. You will be handed the powder by a smiling patient one morning with the remark that "he put the chair to sleep last night."

#### THE HYDROTHERAPEUTIC TREATMENT OF NEURASTHENIA.

Many authorities agree that hydrotherapy is indispensable to the management of a large majority of neurasthenics. It is only one of the means, but it is so important that it requires careful thought by all those who desire to give their patients the best care and attention.

Many text books on nervous diseases testify to the efficiency of the water treatment in neurasthenia. Some authors go so far as to state that without judicious hydrotherapy neurasthenia cannot be successfully and satisfactorily treated.

Dr. Wm. H. Draper says: "It seems to be more effective than any treatment by medicine in stimulating the nerve centres, in restoring the equilibrium of the circulation and reviving the activity of the organic functions."

Kraft Ebing says: "In the management of neurasthenia the water treatment is of the greatest value because as applied preferably in institutions it admits of all possible excitant, calming and alternative effects upon the diseased organism and its tissue change. Its good effect in neurasthenia is due to the regulation of cardiac activity, dilatation of peripheral vessels, diminution or increase in the cerebral circulation, general calming, etc., according to the procedure used." I could go on quoting from such authorities as Erb, Klemperer, Peterson, Preiss, Romberg and Eulenberg, but one and all recom-



mend most highly hydrotherapy in the treatment of this obstinate condition.

In order to obtain the best results, the equipment of a well-ordered establishment is required, where all the various methods of applying water can be wisely and skillfully directed. Yet much may be done by the general practitioner in the home if he will give the time necessary to the proper supervision of the patient, carefully noting the results day to day, and guarding against any untoward effect physically or psychically. In this he can be materially assisted by a competent nurse.

The indication in all treatment is to begin with the mildest measures and accurately determine the patient's reactive capacity, then gradually proceed to more active and stimulating methods. The keynote of all water treatment is reaction, for unless reaction is obtained your efforts will be a failure. Reaction can be obtained in every case if the various procedures are wisely and properly applied. Your reaction at first may be slight, but with daily seances it will soon become very marked, and the patient's confidence will increase in the success of the treatment.

It is not sufficient to tell a patient to take a cold sponge bath every day, to pour cold water down the spine, or to take a cold plunge daily to secure the best results. It is necessary that the physician see the patient frequently, more particularly before and after the procedure, and if possible during it, if the best results are to be obtained. He should not depend upon the nurse entirely, however skilled he or she may be, as mistakes are easily made and your treatment nullified.

Baruch says: "Hydrotherapy fails, alas! too often, as do other remedial measures, but it is my belief that failure of the former is often the result of imperfect and unsystematic application at the hands of the patient, his friends, or by untrained attendants, of a treatment which may have been carefully ordered by the physician." It is necessary that you maintain as close oversight in the treatment of the chronic condition as you do in acute life-endangering diseases.

For purposes of description, let us divide the cases into three classes:

- (1) Depressed or hypochondriacal.
- (2) Excitable or hyperesthetic.
- (3) Mixed type.

The depressed type does not yield readily, and the treatment must be persistent.

If the patient is not accustomed to cold water begin with a sponge bath daily at 75 deg., decreasing temperature 1 to 2 deg. per day until 60 deg. is reached. A cutaneous hyperemia must be induced by active friction, and the rosy appearance will overcome the patient's fear of cold water. Continue this for one week, and if the patient's reactive capacity is good ablutions may be introduced and water thrown on the various parts of the body with the palm of the hand, and friction maintained, using the same scale of reduction as in the sponge. When the patient is accustomed to it introduce the drip sheet, or cold rub, for a few days, gradually reducing the temperature until 55 deg. is reached. When good reaction is established the cold wet pack may be used for an hour, followed by a half-bath lasting five minutes. The temperature of the wet sheet of the packing should be 70 deg. and that of the half-bath 85 to 80 deg. The pack must be carefully and quickly applied to be of service. The patient may complain of the cold wet sheet, but this passes off in about ten minutes. The results of this treatment are usually good, and insomnia is benefited to a marked degree.

In addition to the foregoing it is advisable to prescribe glasses of cold boiled water daily. Two or three times weekly a thorough intestinal irrigation increases the favorable effect of other hydiatic procedure.

If this treatment does not restore the patient, his diet, exercise, rest, etc., being carefully supervised, a more active method should be adopted. To carry out this, however, requires elaborate apparatus and skilled operators. The institution with which I am connected is supplied with the Baruch apparatus, which is considered the best and the most accurate, and the methods adopted are as follows:

*1st Week.*—Hot air bed to point of perspiration—to improve reactive capacity by dilating cutaneous vessels. Circular douche, 95 to 85 deg.,  $\frac{1}{2}$  min. General fan douche, 80 deg., 20 lbs., 10 to 20 seconds. Dry rapidly; walk in open air until fatigued. Repeat daily, reducing minimum temperature 1 deg. each treatment. Once a week allow patient to perspire five minutes in hot air cabinet to benefit tissue change.

*2nd Week.*—Hot air box to point of perspiration. Circular douche, 95 to 85 deg.,  $\frac{1}{2}$  to 1 minute. Fan douche to back, 20 lbs, 5 seconds, 75 deg. General fan douche, 80 deg., 30 lbs., 15 seconds. After several days substitute jet douche for fan douche on back. Reduce temperature of general fan douche 1 deg. daily; walk in open air.



*3rd Week.*—Hot air bath, to point of perspiration. Circular douche, 25 lbs., 95 to 80 deg., 1 minute. Jet douche to back, 30 lbs., 75 deg., 5 seconds; daily reduced 1 deg. Friction walk in open air.

By this time the patient has grown accustomed to any and all procedures. You have his confidence and can introduce, if necessary, the Scotch douche, particularly in "neurasthenic spine," which is the most stimulating hydrotherapeutic procedure, and one we have used with marked success in the treatment of neurasthenia.

The irritable, excitable or hyperesthetic type requires careful handling: Fears hot air cabinet; fears wet pack; fears circular douche, and, in fact, all measures prescribed; bears friction badly.

By using the mildest possible measures persistently, however, the fear is gradually overcome, and a prescription having a sedative effect would read as follows:

Hot air cabinet, to point of perspiration. Circular douche, 10 lbs., 105 to 92 deg., 3 minutes. General fan douche, 10 lbs., 85 deg., 15 seconds. Walking slowly in open air. Repeat daily, increasing pressure and lowering temperature until 15 lbs. and 80 deg. are reached. Gradually more active measures may be used.

Home water treatment is apt to aggravate such cases unless given by thoroughly trained nurses and unceasingly watched by the physician.

Institutional treatment indicated as a rule.

*Mixed Type.*—A valuable procedure is the wet pack, 65 to 70 deg., followed by affusions at 75 to 85 deg., or the circular douche at 90 deg. for 1 minute, and fan douche at 85 deg., reduced gradually each day, but not below 60 deg.

This, then, is a brief sketch of some features of this important subject. I have not attempted to touch the sexual form of neurasthenia as it of itself demands comprehensive handling that is impossible in a paper of this nature. The personality of the physician will always be a prominent factor in the management of the neurasthenic. Without the patient's confidence and co-operation you cannot hope to succeed.

## INAUGURAL LECTURE TO THE SECTION OF PEDIATRICS.\*

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BY ALLEN BAINES, M.D., TORONTO.

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*Gentlemen*,—I thank you most sincerely for the honor you have conferred by electing me as your first Chairman of this important section of the Academy of Medicine.

In my official capacity, and with the certainty that you are all of accord with me, I also desire to thank Mr. Robertson and Miss Brent for permitting us to meet in the theatre of the Hospital for Sick Children. This kindly act will be a great boon to us, enabling us, as it will, to present many cases of interest to the section without risk or discomfort to the little patient, an achievement which would be impossible had we to have them taken over to the Academy.

As we thus inaugurate the commencement of the season's work in this section of Pediatrics, I wish to impress upon myself, and you, the twofold object which we always have in view. The first is personal—the higher education of each one of us in this great subject of the diseases of children.

I. The attainment of this object necessitates the upholding of the most catholic conception of the work of the section, and of extending its influence far beyond the staff of the hospital or the Faculty of the University. This being the case, I feel again, gentlemen, that I carry you with me in proclaiming our earnest desire that many members of the Academy will come to our meetings, and also that medical men who may not be connected with either of these bodies will help us in our march towards further light and knowledge by sending in reports of cases in their charge and by writing papers upon their experience in the treatment of infantile maladies for our discussion. "In the multitude of councillors there is wisdom," so said the wise king, and his words never strike home more truly than in the noble study of medicine, so true is it that every difficulty in diagnosis or treatment that is brought to light, discussed and cleared, every doubt that is set at rest, every experiment tested, every hypothesis turned into certainty by the largest possible comparison of experience, is an obstacle removed in the path that leads to full light concerning the subject. And the aim of the section is to become a full and radiant light, a beacon of

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\*Toronto Academy of Medicine.



ever advancing pediatric knowledge, whose rays shall penetrate through the gloom that surrounds every little sick bed north and south and east and west of the city.

II. We now come to the second named object of our section, *i.e.*, the benefit and welfare, moral and physical, not only of the little ones, but of the whole community.

The Pediatric Section may be said, in a figure of speech, to stand around the cradle of part of the human race. When Wordsworth asserted that "the child is father of the man," he announced a truth most important in its bearing upon the study of the medical care of children. The remembrance of this fact is, perhaps, apart from instinctive love of the little children themselves, the greatest encouragement to us amid all the difficulties that beset us in our treatment of them. It enables us, as it were, to cast our eyes beyond the present, into the far future of the little life for which we care; it enables us, in each hardly won conquest of disease and hereditary taint, to see ourselves as the officers of Providence, and to rejoice in the sending out of one more healthy and normal, therefore valuable citizen, and that thus we have been permitted to take one more from that other sad crowd of listless and unhealthy, therefore incompetent, human beings.

So, gentlemen, we see ourselves as upbuilders of the race.

This last word brings us to a part of our work which, though in a manner indirect, is inseparable from it, namely, the instruction of mothers as to their moral and physical care of their children.

To the mothers, then, we stand as mentors, whose office it is to instruct them upon their care of the infant during its tender years. Without such training and advice, how would it be possible for young and inexperienced mothers to observe the physiological laws upon which their children's health depends, or to guess the necessary principles to be followed in the matters of feeding, clothing, exercise and cleanliness, or to watch intelligently the performance of the organic functions of the body? It is easy to understand that without such co-operation of the mothers our medical treatment is beset with unnecessary difficulties, and often completely defeated in its object.

I am glad to be able to state that in the immediate future there will be a graduate nurse appointed from the Sick Children's Hospital whose duty it will be to visit all patients receiving out-door treatment, to see that the little child is having its medicine administered and its food prepared and given as it should be, and to report progress of all cases. This is a great

step, and I am sure, will be of the utmost value in aiding the rapid convalescence of the patient, as well as being missionary work in educating the mothers in cleanliness and care of their families.

Another position, of no less importance, has been made: Dr. Menton is every day to examine chemically, bacteriologically and microscopically the dejecta of all infants suffering from ileocolitis and allied diseases. Professor Mackenzie assures me that every facility will be afforded to Dr. Menton to do the work thoroughly, and every encouragement given to pursue original research.

The outcome of such work, we must all feel, will be a great aid to all practitioners in treatment and diagnosis of many obscure conditions found in this class of disease.

I look, and I know that I shall not look in vain, for the hearty co-operation of all the Fellows in this Section and of the Academy at large, in providing at every meeting a full, interesting and instructive programme, which at every point shall present thorough and consistent work.

Let every case reported or paper read be well worked up in history, progress and detail, so that questions asked or criticisms made may be met by the unassailable front of complete command of the situation. Tanner writes: "How frequently it is said by laymen that the profession of medicine is merely a conjectural art, and practitioners are sometimes reminded that their predecessors have rejoiced at being able to retire from a harassing life, because they were weary of guessing." Allowing that the observation contains a certain modicum of truth, it is nevertheless quite clear that there is a vast difference between the conjecture of the scientific physician and that of the rash and ignorant empiric, for where the one either surmises by rule and by a process of reasoning, for each step of which he can show the why and wherefore, or else by a ready perception acquired by extensive study and practice, the other, on the contrary, merely makes a haphazard guess which, to say the least, is as likely to be incorrect as not.

May we not hope, for our part, that by means of their criticism and pertinent questioning we shall prove ourselves worthy of being ranked as scientific and science-gaining physicians and not as rash empirics, who often foster ignorance and hinder progress by a mutual admiration which acts as an anesthetic, hindering strong endeavor and putting to sleep that "divine discontent" which always leads on to higher discovery and further knowledge. Let us, therefore, cultivate this "divine discon-



tent" with ourselves and openly, when it is necessary, with each other, at these meetings, showing ourselves able to give and to take a challenge in a friendly and scientific spirit, able to forget our own importance, merging it in the far greater importance of our purpose, which is to buy experience and ever to advance in the art of healing.

It is surely good for us to remember that this work of ours can only be perfected by friendly criticism, and also, in our minds, to emphasize that word "friendly"; continually to place before ourselves the fact that as surely as we are bound to a more than common friendship with each other by the more than common cords of love and endeavor for a world of suffering and helpless children, so surely must the same ties be strengthened and not broken, so surely must our friendship be cemented and not loosened by the close questioning and oftentimes adverse remarks of our fellows in the work. For, certain as it is that we are bound, in the outer world, to shield each other from the scandalous attacks of ignorance, so is it equally certain that, within this Academy, we must be mentors each to his fellow, upholding the eternal laws of honorable dealing, best endeavor and highest aim. South, in one of his sermons, says: "He who does a base thing in zeal to his friend burns the golden thread that ties our hearts together. The performance of good offices towards our fellows not only confers immediate gratification, but permanently ennobles our dispositions and enables us, at the close of the evening, to give a cheerful answer to the question each one should put to himself, 'What have I done this day?'"

## REMINISCENCES OF TWO OF TORONTO'S PRINCIPAL MEDICAL MEN IN THE EARLY YEARS OF THE CITY'S HISTORY.

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By WALTER B. GEIKIE, M.D., C.M., D.C.L., LL.D., F.R.C.S.  
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Having been asked by THE CANADIAN PRACTITIONER to send that journal a résumé of part of an address recently given by me before "The York Pioneers and Historical Society," I have pleasure in complying with the request.

Everywhere in civilized countries, prominent members of the medical profession have in the past, and are now, playing an important part in making current history. It therefore appeared to me that this résumé would be most interesting to the readers of THE PRACTITIONER were I to select from my address the portion which dealt with two of the most prominent Toronto medical men of a bygone generation. I can give but briefly, in a single paper, the story of two such lives as I have selected, and have had to rest satisfied with such facts as I could gather as might prove interesting to your readers in the medical profession of Ontario. I give first a sketch of Dr. Christopher Widmer, for a great number of years Toronto's principal medical man. He was born at High Wycombe, Buckinghamshire, England, May 15th, 1780. He entered the medical profession early in life, having passed his examination for his M.R.C.S. (Eng.) in 1803, only three years after the Royal College of Surgeons was founded. He soon became a distinguished surgeon and afterwards obtained the highest standing conferred by the Royal College of Surgeons, England, its Fellowship. He joined the army and became staff surgeon, attached to the 14th Light Dragoons, and in 1812, during the last war between Great Britain and the United States, came to Canada with his regiment. As the war was of brief duration, Dr. Widmer decided to remain in Canada, and settled in Toronto to practise his profession. His skill as a surgeon soon made his name famous over the whole Province of Upper Canada (now Ontario). His experience as a surgeon in Spain during the Peninsular War was very great. He wore a medal with five clasps, each of which bore testimony to his presence at a hard-fought battle—between the British army, under the great Duke of Wellington, and the French army, under one or other of



the famous marshals selected by the French Emperor Napoleon the First, whose genius in the conduct of war was incredibly great, so much so, that but for the wonderful valor, the intense pertinacity, and the marvellous skill of the Duke of Wellington and the able generals under him, in command of the best and bravest of soldiers, he would have laid the whole of Europe helpless at his feet.

The battles at which Dr. Widmer was present were Vittoria, Busaco, Fuentes D'Onoro, Talavera and Salamanca.

Dr. Widmer practised all the branches of his profession, as well as surgery, with marked success. When he settled in Toronto he was a young man of about 33 or 34 years of age. Before long he was made a member of the Legislative Council of Upper Canada. He was also a member of the Medical Board of Upper Canada. He was present at its first meeting in 1819, and was its President from 1823 till his death thirty-five years afterwards. He was much interested in all its work, and, taking everything into consideration, was perhaps its most useful member. The sittings of this Board were always held quarterly in Toronto. The responsibility of the examination work assigned to it was very great, as for many years it was the only examining medical board in Upper Canada. A candidate, having passed his examinations before it, obtained a license to practise, signed by the Lieutenant-Governor of the Province, and after the union of Upper and Lower Canada, by the Governor-General. Medical students living and intending to practise in Upper Canada, in very early days, could not obtain a medical degree in the Province. Almost the only persons having such a degree had taken it in some one of the then very few degree-conferring universities in the United States. These gentlemen had all to undergo examinations by the Medical Board just as Canadian students did. Candidates possessing recognized British qualifications received the Governor's license on presenting these, with the required identification, to the Board.

Dr. Widmer was a splendid specimen of a medical gentleman of Toronto's early days. For many years he lived on King Street East, nearly opposite what is now Ontario Street. Widmer Lane, still open, is on the west side of the lot on which his house stood. The dwelling was a frame house, square in shape, two stories high, and white painted, and its front was flush with the street. He, after several years, built a handsome brick two-story house on the south part of his lot, about fifty feet north of Front Street, the house facing the south.

This house was taken down only about two years ago, and had, after the death of the doctor, for many years, presented a very shabby, neglected appearance, and surrounded with unsightly buildings of one kind and another. One can hardly conceive, to look at it, that it could have been the handsome residence it was during all the years Dr. Widmer lived in it. In this house he had his office, and did a great deal of surgical and medical work of all kinds. His widespread reputation attracted multitudes of patients not only from the city, but from the entire Province, and often far beyond it.

When Lord Sydenham was Lieutenant-Governor of Upper Canada his horse fell with him and broke his Lordship's leg. He resided at Kingston, and sent promptly for Dr. Widmer. In those days the roads were very bad, and travelling slow, but, with relays of fresh horses, the doctor got to Kingston as quickly as he could and attended to his patient. The case did so well, and Dr. Widmer's skill and services were so highly appreciated by his Lordship, that he made him a special present of a valuable gold watch. Dr. Widmer was a great worker, always busy, and pleased to be so, but however his time might be taken up by patients able and willing to pay him well for what he did for them, he was always delighted to do all he possibly could gratuitously for the deserving poor during sickness of any kind. I have heard many of his former patients speak of the great kindness and attention he had shown them when they were not in a position to remunerate him as they would have liked to have done, and they often added, "Yet he attended us as well as if we had been the richest people in the Province." For a few years Dr. Widmer took into partnership with him Dr. Deihl, a medical man from Montreal, as it had become quite impossible for him to attend to all his patients without an assistant. This partnership lasted nearly six years and a half, and closed May 1st, 1835.

Dr. Widmer was of medium height, somewhat taller than Lord Roberts, but having much the same figure and erect, soldierly bearing. He was quick and active in all his movements. I fancy I can see him now as he often dressed in summer, with his swallow-tailed blue cloth coat, with its black velvet collar, a light-colored vest, and nankeen trousers, and well-fitting low shoes, neatly tied with black silk ribbon. When looking at a patient for the first time or at whatever might be going on that interested him, he often stood with two or three of his finger tips in his trouser pockets.

His full-length portrait, painted by request of the medical



profession, is now in the General Hospital, and gives an excellent idea of his appearance during the last two decades of his life. I knew him very well, having been his clinical clerk at the Hospital in 1850 and 1851, and remember calling upon him not very long before his death. I found him much depressed, on account of the recent death of his favorite son, Christopher Rolph Widmer. He spoke with much feeling of the shock his son's death had been to him, remarking that it seemed sad, to have him cut off in his early youth, and with his life, humanly speaking, before him, while he, his father, now old, and of comparatively little use in the world, was spared. I said what I could to cheer him, and after he had warmly thanked me for calling upon him, he bade me good-bye, shaking hands with me cordially as he did so. I never saw him again. Very shortly after this interview, on a Sunday afternoon, May 1st, 1858, he walked to the cemetery to see his son's grave, and here, from the walk having been too much for him, and from the depth of feeling as he stood by his loved one's grave, he fainted. He was taken home as soon as possible, but never completely, or indeed to any extent, rallied, although conscious enough to answer a few times when spoken to. He died next morning, about six o'clock, May 2nd, 1858. He was buried on Thursday, May 7th, and a large concourse of his private and professional friends followed his remains to the cemetery, as a last and a sad tribute to one who was much loved and greatly respected by all who knew him.

The next celebrated name, and one long associated with this city, and with Canada during a large part of the past century, is that of the Hon. Dr. John Rolph, M.R.C.S.E. He was born at Thornbury, England, March 4th, 1793. The family, *i.e.*, his father's family, came to Canada early in the century. The subject of this sketch did not leave his native country till 1812, in which year the vessel in which he took passage was captured by an American ship, war having been declared by the United States against Great Britain, before the ship reached America. The then President, Mr. Madison, was good enough to send him a passport to Canada, a very kind act towards one held as a lawful prisoner, taken on board an enemy's ship at sea. He was sent to Batavia, N.Y., U.S.A., and there detained. Those in charge found him engaged in making what they thought were sketches of United States fortifications and defences of one place or another, and pronounced him a spy. This was found, however, to be a glaring mistake; the young man, only about twenty years of age, having been

employing himself in working out some problems in Euclid as a pleasant way of occupying his time. Although the silly suspicion of being a spy was soon found to be quite groundless, it occasioned more or less needless delay. An exchange of prisoners being made, he, with the others, was soon sent to Canada. After the war was over, he returned to England, where he completed the important studies of his life. These embraced the two professions of law and medicine. He became a member of the Inner Temple, London, and was called to the English Bar in 1821. His medical and surgical studies he pursued under Sir Astley Cooper and others, and his tickets, signed by his teachers, are still in the possession of a member of his family. He had previously graduated in Arts in the University of Cambridge.

The hospitals in which he studied were Guy's and St. Thomas', then conducted under the management of one board, but for many years past being managed as two separate hospitals, each having its own Board of Governors. Dr. Rolph's diploma, obtained from the Royal College of Surgeons, England, bears the date 1820, giving him the membership of that College. In 1821 he returned to Canada and soon entered the political arena. Being a man of rare culture and great ability, he was always anxious to obtain for his adopted country such political freedom as would promote the happiness and prosperity of her people. But the most advanced of the Reformers of those days never once thought of asking such privileges as all Great Britain's self-governing colonies now enjoy, under which, with sincere loyalty to the Empire of which they form so important a part, they at the same time practically govern themselves, enacting all their own laws in their own free Legislatures; under their own Government, which is responsible only to their own people. Canada, now extending from Sydney, C.B., to Victoria, B.C.; New Zealand, Australia (and a federated South Africa will soon be added to the list), in this way enjoy a freedom unequalled, I think, by any nation in the world. Dr. Rolph was elected a member of the Legislature of Upper Canada for Middlesex in 1824. He did not register till 1829 as a medical man in Canada, as, with his English diploma, he might have done at any time. He gave much of his time to the profession of law, and secured a very large practice, which increased year by year. He was regarded as having no equal, or at least very few indeed, in Upper Canada, as an eloquent and a successful pleader in the courts. One celebrated case of his may be here referred to,



which was tried in 1825—the Randall case. It was tried at Niagara, Upper Canada. The question before the jury was practically whether or not Mr. Randall, a member of the Legislature, duly elected, was guilty of perjury in swearing that he had freehold property amply sufficient to qualify him as a candidate for the seat to which he was elected. Mr. Randall declared he owned the property he claimed. The Government of the day, however, had been bold enough to give a patent to another person, one Thomas Clark, and had declared Randall's title as merely a leasehold. "Yes," said Dr. Rolph, his counsel, "but the lease was legally made out and legally conveyed to Mr. Randall, and was for a period of 999 years."

After an absence of only five minutes, the jury brought in a verdict in favor of Mr. Randall. At this trial the appeal made to the jury by Dr. Rolph was one of the most powerful and effective efforts ever made by a barrister on behalf of his client before any Canadian court of justice.

Dr. Rolph was at that time residing in Dundas, and had taken into partnership with him his brother George. The doctor spent most of his time engaged in his law practice, his hands being always so full of important cases that he found it difficult to overtake all the work that came to him. But even under these circumstances he gave more or less attention to medical cases.

As a speaker in Parliament he had few equals and no superior. His speeches on record, made on special occasions in the House of Assembly of Upper Canada, are even now well worthy of a careful perusal by all interested in the history of the Province. Having been dissatisfied with the decision in a case in 1828, Dr. Rolph (with Dr. Warren Baldwin and Mr. Robert Baldwin, son of Dr. W. Baldwin) threw off his gown and left the court. He believed that at that time it was all but impossible to get justice, and he resolved, therefore, to abandon the practice of law. He carried this resolution out in 1832, and transferred his practice to his brother George, at Dundas. He had, between 1828 and 1832, much unfinished legal business, which he completed, refusing, however, to take new suits. He now threw all his energies entirely into the practice of medicine, in which he had done a little in past years when so busy with his legal work as to leave him but little time to devote to anything else. Only a few years ago, one of the old judges, speaking of Dr. Rolph's giving attention to both law and medicine, said that he would have his horse standing near by, waiting for him, while he was plead-

ing a case in court. Having finished his pleading, he would quickly leave the court and visit patients, carrying his medicines and instruments with him on horseback in his saddlebags.

Thereafter Dr. Rolph was only known as a medical man, and forthwith became as famous in medicine as he had proved himself to be in law. He began to take pupils again as medical students, in limited numbers, whom he taught as no one else could, the various branches of the medical profession. He was full of enthusiasm as a teacher, and had the gift of making everything he taught glow with interest, and was successful in no ordinary degree in kindling even in students who were difficult to teach, and much more fully in those who were eager, and able to learn quickly, a great enthusiasm for the subjects as he taught them. This was the secret of his great and continuous success as a teacher.

Sir John Colborne, Lieutenant-Governor of Upper Canada (appointed 1828), recognizing his wonderful ability as a medical teacher, urged him to found a medical college in Toronto, and promised Government aid to set it going. This suggestion, unfortunately, was not acted upon. Had it been, how different—how much better and so much earlier might really good medical education have been put within the reach of every intending medical student in Upper Canada.

Dr. Rolph was married in Kingston to Miss Grace Haines, of that city, in 1834. Her parents had some years previously come to Kingston from Leicester, England. The doctor was most fortunate in the lady of his choice, who was one of the brightest and ablest persons in Canada, and who to the end of his life was all that the best of wives could be to her husband. Mrs. Rolph survived her husband for twenty years.

As an illustration of Dr. Rolph's great kindness of heart, the following story, which should be included in every sketch of his life, however short, is full of interest. Two men in the early thirties were arrested and tried on a charge of stealing an ox. They were convicted by the jury, and sentenced to be hanged. People were horrified and shocked at the prospect of the early execution of the prisoners, and no one more so than Dr. Rolph, who had an office in the village of Vittoria, where they were to expiate their crime on the gallows, and who was much distressed at the thought of inflicting capital punishment for such a crime. He determined to ride to Toronto and intercede with the Lieutenant-Governor, Sir John Colborne. Before leaving on this errand of mercy, the doctor



visited the Rev. John Ryerson. It was arranged that Mr. Ryerson, who was to attend the unfortunate men on the scaffold, would delay the execution as much as possible, by making the closing prayer as long as he could, in case Dr. Rolph's return should be in any way delayed. The doctor set out on his journey on horseback, and fully expected to be back some hours before the execution took place. He rode the swiftest horse that was to be had in the village. The people had little faith in his ability to make the journey in as short a time as he hoped to do, and still less faith in the Governor's inclination to interfere in the case. Time passed on; the people flocked from all the surrounding country, as was then the rule. Meanwhile, the men had ascended the scaffold, and Mr. Ryerson was asked to engage in the final prayer. He knelt on the scaffold and began what proved to be the longest and most remarkable prayer of the kind on record. He spoke softly to husband his strength, and prayed for about twenty minutes without creating any remark. He went on to the half-hour without any sign of Dr. Rolph's return. For another half-hour the prayer went on, and the people began to be restless. The sun poured down on their uncovered heads; the people, the sheriff, and even the hangman looked weary. Mr. Ryerson became tired, and even the poor wretches awaiting death were annoyed, for Mr. Ryerson had not told them of his agreement with Dr. Rolph. The murmuring rose higher and higher, yet Mr. Ryerson prayed on without stopping for a whole hour. From fatigue, his words were disconnected, his tongue dry, his voice husky, and unable to form words properly, yet he went on. He told friends afterwards that at last he did not know what he was saying, and that the only real prayer he offered during the whole time was the silent one, "God hasten Dr. Rolph's coming." At the end of an hour and a half there was more or less uproar, tending to increase, when someone cried out, "Here comes Dr. Rolph!" Mr. Ryerson did not hear or notice the tumult, but kept on praying, his voice becoming weaker every moment. Dr. Rolph, on horseback, came near enough to be recognized and dashed right up to the very foot of the scaffold, himself too weak either to move or to speak. He held up a document in his hand, which was quickly taken by a man in the crowd, who cried out, "Reprieve! reprieve!" It was so. And thus the lives of two men were saved.

During the few years preceding the Rebellion of 1837, Dr. Rolph had occupied many positions. For a short time he, with

Dr. Baldwin and Messrs. Dunn and Bidwell, were members of the Executive Council of the Province, but in consequence of the refusal of the Lieutenant-Governor to recognize the principle of Responsible Government, they all resigned. In 1836 he was elected member for Norfolk for the second time, and, having gone to Toronto to live, he continued his teaching of medical pupils. Dr. James H. Richardson is now, I believe, the only survivor of these early medical students. This paper cannot be extended to give any account of the troubles of 1837, in which Dr. Rolph, from his position as a prominent Reformer, because an advocate of Responsible Government, was necessarily more or less involved. It is now generally admitted that the Government of those days in Canada was unwisely arbitrary. Lord Durham, who was specially sent out in 1838 as Governor-General of Canada, and requested by the British Government to look into and report upon the condition of matters in the Canadian provinces at that time, said that had his own lot been cast in Canada at the time of the 1837 troubles, his sympathies would have been with the Reformers.

The attempt at a rising ended, as is well known, in a very small way. Some of those who were more actively involved in it had a reward offered for their capture. Dr. Rolph was one of these. He made his way safely out of Canada, though it was attended with a good deal of risk, as he had more than one narrow escape from being detained. He finally got across Niagara River into the State of New York, where, as a political offender only, he was quite safe. He went for a short time to New York City, and subsequently to Rochester, where he practised medicine successfully till 1843, when the Governor-General of Canada issued a proclamation pardoning all political offenders, upon which he immediately returned to Toronto. Here he resumed his medical teaching, but on a larger scale than before. Students gathered round him at once. He lived on what was then called Lot Street (now Queen Street), and there he practically began what soon afterwards became Dr. Rolph's Toronto School of Medicine. In 1851 the doctor got an Act of Incorporation for his school. For a very short time it went on in an unpretentious way. Its classroom and dissecting-room were in a part of a long shed in Dr. Rolph's yard, which was heated comfortably in winter, and where, after a time, assisted by others, he had all the students to teach that he could accommodate. They were exceedingly well taught in every branch of medical education, and better students never



came out of any college, however well equipped, than those who received their education at this school. The way they passed the strict examinations of the Government Medical Licensing Board proved this completely, for none made a higher standing.

One of the earliest advertisements of Dr. Rolph's school was as follows: "Medical students who do not intend to enter the University will be, as heretofore, received by the subscriber, and conducted through the usual course of medical studies, with such additional aid as may be deemed advisable, and prepared for obtaining their diplomas from the Medical Board. (Signed) John Rolph, Lot St., Jan. 1st, 1844."

In 1848 the advertisement was changed, but is made even more brief: "The Session will commence on the last Monday in October, and end on the last Saturday in May, under Dr. Workman, Dr. Park, and the subscriber. (Signed) John Rolph. Toronto, Sept. 25th, 1848."

I attended the session 1849-50. Two or three additional names had been added to the Faculty. This was the last session held in the original lecture-room, where all necessary accommodations were provided to meet the needs of this, which was to become in a very short time one of the largest and best medical colleges in Canada, as the Medical Department of the University of Victoria College, with Dr. Rolph as its respected and revered Dean.

This great advance came gradually. In the summer of 1851 Dr. Rolph built a brick addition to his own residence, of which the first story formed a part, while the second was a museum, well filled with excellent anatomical preparations, and the third story was a convenient and well built new lecture-room, with all modern improvements up to that date. This lecture-room and the museum were entered by a stair leading up from the street (Queen Street West, then No. 53). These were not the only additions to the school accommodations made that year, for Dr. Rolph rented a brick building from Knox Church, used as a Sunday School before Knox Church was built, and then vacant. It was entered from Richmond Street, and with little expense a large lecture-room was fitted up, while for anatomical purposes there was ample room.

With two new lecture-rooms, and everything else that was needed, the school grew rapidly from year to year. Somewhat unfortunately for it, Dr. Rolph was urged in 1851, and consented, to re-enter the Parliament of the then united

Provinces of Canada, East and West, as they were called. He was elected member for Norfolk, his old constituency, and appointed Commissioner of Crown Lands in the Hincks Government. He continued in this position till 1854. This new state of things necessitated his giving up his medical school teaching for a short time, which was carried on as well as possible by his colleagues in his absence. They felt the loss of his teaching very keenly, and he himself was by no means sorry to resume in full what was his most congenial work, as he did not now desire to continue long in his Government and Parliamentary positions. The school after his return soon outgrew all the increased accommodation provided for it, and entered on a new phase of its existence. An unused church building on what is now Bismarck Ave., St. Paul's Ward (then Yorkville), was bought and converted into a very fine medical college, in which was provided everything likely to be required for a good many years. By arrangement with Victoria University, it had become its Medical Department, with Dr. Rolph as Dean.

Some difference in connection with the school arose between Dr. Rolph, who was the Dean of the Faculty, and his colleagues, soon after these last changes had taken place. Most of his colleagues had been educated in medicine chiefly, and some solely, by himself. The Victoria College Board supported Dr. Rolph on its being appealed to in the matter. On this account his colleagues resigned in a body just the day after the opening of the session of 1856-7. The University authorities promptly accepted the resignations which had been sent in, and directed the Dean, as the responsible head of the department, to fill the places of the gentlemen who had retired, as well and as speedily as he could. Although placed in an exceedingly difficult position, the Dean proved himself quite equal to the occasion. During the little more than two weeks it took him to complete new arrangements for carrying on the work of the session, Dr. Rolph alone kept everything going on in the college. He lectured during this period four or five times every day on the various subjects, to the entire satisfaction of the students, who, with hardly an exception, stood by their able teacher and Dean.

The high character of the Dean's teaching during this time made it even more difficult than it would otherwise have proved for the new professors whom he called to his aid, and appointed to fill the vacancies. At this time the writer was appointed Professor of *Materia Medica* and *Therapeutics*, to



which chair the duties of another were very soon added, viz., those of Midwifery and Diseases of Women and Children; a large burden with which to begin, with no special preparation, the responsible duties of medical teaching. With further and very willingly rendered help, the session was successfully completed.

Throughout Dr. Rolph's Deanship, which lasted till 1870, this medical school was singularly prosperous. He at first continued to use the name as advertised when the arrangement with Victoria College was first entered into, which was "The Toronto School of Medicine—the Medical Department of Victoria College." The professors who had resigned, as they constituted a majority of the members of the Corporation of the "Toronto School of Medicine," lost no time in renting a building from the University of Toronto, in which they established themselves under the old name of "The Toronto School of Medicine." They soon applied for an injunction to restrain Victoria College and Dr. Rolph from continuing to use the name of "The Toronto School of Medicine." The decision of the court was adverse to the Victoria College and Dr. Rolph (who acted as his own counsel), and the injunction was granted on the ground that, as "The Toronto School of Medicine" was a corporate body, no arrangement such as that alleged to have been made by "The Toronto School of Medicine" with Victoria College could be legally entered into without an Act of the Legislature, authorizing the School to make such an arrangement, and that, as this had not been done, the arrangement made was legally null and void. Unquestionably neither of the parties interested had thought of such a thing being necessary when the arrangement was entered into.

This decision was of no moment so far as Victoria College and Dr. Rolph were concerned. The students and the general public knew well that "Rolph's School," as it was called, was wherever Dr. Rolph was teaching, and the Medical Department of Victoria was thereafter advertised as such, with the addition of the words, "Commonly known as Rolph's School," which answered every purpose. With the Dean at its head, this Medical Department steadily grew in public favor year by year, and was for a long time the most largely attended medical college in Canada. At length, in 1870, having become somewhat feeble from old age (being then in his 78th year), he resigned his position. His resignation was sent in, just when it was, because some of his colleagues thought it right, notwithstanding his decided wishes to the contrary,

that an "Assistant Dean" should be appointed, and the College Board saw fit to carry this recommendation into effect, upon which the venerable Dean forthwith resigned. The writer, whose views were in full sympathy with those of Dr. Rolph, also resigned at the same time.

The Medical Faculty of Victoria, as then constituted, never recovered from the shock it received by the retirement of its honored head, and of the other professors, who either retired with the Dean, or soon afterwards. It came to an end during the session of 1874-75. About three years before this time, the Faculty had received permission to sell the Yorkville College building, and had obtained a lot and erected a new building on Gerrard Street, near the General Hospital. The Faculty soon after this resigned, and this new building came to be occupied by the Toronto School of Medicine, which carried on its school there till 1887, when, having joined the Toronto University as its Medical Faculty, it ceased to teach as a separate body.

Dr. Rolph did not live long after resigning his position as Dean, which self-respect and a high sense of honor alone prompted him to do. He retired to Mitchell, Ontario, and died October 19th, 1870, and was buried there. His remains were removed to Toronto twenty-seven years afterwards, and he was buried by the side of his wife, in Mount Pleasant Cemetery. It is surely high time that something should be done to mark the last resting-place of one of Canada's most laborious public servants, and one of her very greatest men.



## Selected Article.

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### THE NEEDS OF THE UNIVERSITY OF TORONTO.

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BY R. A. FALCONER, D. LITT., LL.D., PRESIDENT.

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During the last few years the growth of the University of Toronto has been so rapid that many serious difficulties, both educational and administrative, have arisen. Had the increase been spread over a longer period the process of adjustment and expansion would have been more satisfactory. The University has, within a short time, become one of the largest in the British Empire, and stands in the first rank on this continent. According to the latest returns only eight are larger, namely, Columbia, Harvard, Chicago, Michigan, Cornell, Illinois, Pennsylvania, Minnesota, and it is not improbable that if the methods of calculating the enrolment were uniform the relative positions might be changed. There are, however, eleven American universities with a larger total annual income, and of these eight reach the million mark or over.

The rapid expansion of the University has brought forcibly before the Governors the fact that the grounds of the University are already so occupied that they will at the present rate soon be fully built upon. In planning for new buildings which must be erected in the near future, it has been found extremely difficult to secure suitable space. On this account several properties, the leases of which have fallen in, have been acquired. One of these is the Worthington property in Queen's Park, a large piece of ground which will serve admirably for the Botanical and Forestry departments. The house is being fitted for Forestry, and in the rear additions are being made for the Botanical laboratories and museum. In the garden the beginnings of plant-houses are under way, also the potting-house. This property is excellently adapted for the work of these departments and is large enough for future additions as they may be required.

The most urgent pressure for accommodation during the past winter, apart from the necessity for schools for the Faculty of Education, was in the Faculty of Applied Science. This Faculty is housed in the old Engineering building built for the School of Practical Science, and in the new Science building facing on College Street, commonly called the Chemistry and Mining building. These buildings are not sufficient for the needs of this Faculty.

It is very desirable that the buildings of the University should, as far as possible, be grouped according to the main subjects taught. Thus the expansion of the Engineering Faculty should be around the two buildings already in existence. This principle has been observed in the Thermodynamics and Hydraulics laboratory which is now under way. For a long time the site was carefully considered, and eventually it was decided to place the building between the old and new Engineering buildings, the plan being so drawn that when in the future additions are made to the Applied Science building on College Street by throwing out wings at the back, the sides of the laboratory will be hidden and only the north side, which is designed suitably for prominent exposure, will be seen. When the time comes for a new building where the old Engineering building now stands, it may be erected so that with the extended wings of the Chemistry and Mining building and the Thermodynamics laboratory it will form a harmonious group. The erection of the Thermodynamics laboratory necessitates the closing of the road that leads from College Street and bringing it in time past the Biological building and nearer the Medical building.

The situation may not prove to be quite so hard to solve for medicine, at least in the near future. Extension of the Medical building in the rear is feasible, and should the new hospital be erected soon, it is possible that arrangements may be made whereby much of the work of the later years may be conducted in laboratories connected with the hospital.

In the case of the Library the site is quite suitable for expansion. The new plans which have been drawn show additions at the back and on the south end of the present building.

With the erection of the Thermodynamics laboratory it became necessary to find a new location for the Geodetic observatory which stood to the south of the old Engineering building, and this was determined largely by the requirements for observation unobstructed by buildings near by. At the same time the old building used by the Dominion Meteorological Department was vacated by its removal to the new quarters on Bloor Street, and this observatory is to be transferred to the level ground lying about opposite the east door of the Main Building, but sufficiently far back not to interfere with it.

There is enough ground about the Gymnasium for additions to it and for the erection of other buildings connected more intimately with the student life of the University. Crossing Hoskin Avenue, we come to the new residences. Quite apart from the place they are likely to fill in our academic world, the



buildings themselves are a distinct and most effective addition to the University environment, and they may be in the future followed by others for which room might be found in that neighborhood.

The Main Building, representing so splendidly the oldest part of the University, thus stands most appropriately in the centre of the grounds. To the south of it are the professional schools, the buildings for pure science, the Library and the Convocation Hall, in which the one side of the University activities is represented; while on the north the recreative and residential sides have their home.

Farther away, on Bloor Street and Spadina Avenue, is the site for the buildings of the Faculty of Education, which must be soon erected if the object aimed at in establishing this Faculty is to be carried out. These would consist of practice and observation schools of every grade, and of class rooms and other accommodations for the students and staff of the Faculty.

Proceeding east along Bloor Street, we reach, after passing McMaster University, the ground that is reserved for the proposed Museum. This Museum, though regarded by some as not being among the primary necessities of the University, should not be deferred very long, for there is at present in our possession most valuable archaeological and other material for which it is almost impossible at present to find space even for storing, and if this were arranged so that the public could have access to it not only the University but the city and province would benefit. Such a building might be made the centre for a Fine Arts Department, which must in time be added to the University, and would be a very great means of diffusing in the city and country this type of human culture. As soon as the building can be erected a very excellent Museum will be at hand from the material that we already possess.

Across Queen's Drive the foundations have been laid for the building for Household Science, a structure of elegant design which is being erected by Mrs. Massey-Treble. This should become a centre for much of the life of University women, besides being splendidly equipped for the definite branches for which it has been planned. The women students of University College have a residence in Queen's Hall, facing the Park, but it has been so successful that accommodation cannot be provided for all who apply, and if the University could build or secure a suitable additional residence, it could be conducted under the same management, to the great advantage of the women students who are attending the University in rapidly increasing numbers.

—*Abstract from The University Monthly.*

# Progress of Medical Science.

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## MEDICINE.

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IN CHARGE OF W. H. B. AIKINS, F. A. CLARKSON, AND BREFNEY  
O'REILLY.

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### **The Therapy of Hay Fever.** By Dr. A. A. Friedlander.

I have had this patient under treatment for eighteen months, and have watched him during two severe attacks of hay fever. His father had such sensitive mucous membranes that after almost every railroad journey he suffered from bronchial irritation. The mother is very nervous, has bad attacks of bronchitis and sensitive mucous membranes. The patient is very nervous, but has sound lungs. The tuberculin test was negative. He has suffered from hay fever since his eleventh year, having the usual symptoms of conjunctivitis, rhinitis, asthma and cough with expectoration, often lasting many months. The attack in 1907 began at the end of May. The conjunctivitis was relieved by the use of Rhinokulin. Hypnotic treatment, as the patient yielded himself fully to suggestion, always brought on sleep in a few minutes and induced deep, quiet breathing. The asthma was thus much improved. With this treatment, the attack lasted only three weeks. In 1908 the first symptoms appeared on the same day as in 1907. Four days later there began a severe attack of asthma, which lasted several hours. He had to spend whole days in darkened rooms. The attacks of asthma were specially severe before thunderstorms, less severe afterwards and when the air became cooler. Salipyrin and hot baths gave some comfort. As the attacks developed so rapidly in severity it was impossible to employ hypnotic suggestion. The patient could not remain quiet long enough to yield to the suggestion. *Eupneuma* was now tried. (*Eupneuma* was recommended in 1907 by Dr. E. Ritsert, of Frankfurt. It contains anæsthesin, atropin, stramonium, saltpetre and belladonna.) The effect was surprising. Almost at once the patient experienced a lessening of the asthma, he was able to breathe more quietly and empty the bronchial tubes more easily. Three times a day he inhaled Fluinol. When he felt that the asthma was increasing, he used eupneuma (as a snuff). He had also hot packs applied to the chest. Rhinokulin relieved the nasal condition.



With regard to hypnotic suggestion, I wish to observe, as has been also stated by other authors, that it must be employed in such a way as to lead to the strengthening of the patient's will. It must not be used in such manner as to require that the patient has to yield himself fully to the will of the physician, but so that, by the strengthening of his own will-power, through concentration, he will fall asleep. These exercises of will or concentration enable the patient to become master of certain morbid conditions. I might also observe that I have seen in Heligoland patients suffering as severely from the symptoms of hay fever as those who were in the mountains. I think that the danger which such patients are exposed to in cities, with regard to secondary infections, must not be overlooked.—Translated by Harley Smith from *Muncheuer Medizinische Wochenschrift*.

### Chorea.

In the *B. M. J.*, of Sept. 12, 1908, a clinical lecture appears, presented by Guthrie Rankin at the London School of Clinical Medicine. The various symptoms are treated in full, as is also the diagnosis of the more unusual types. Attention, however, is directed more particularly to the therapeutic measures suggested.

First, absolute rest is essential. Physical and mental sources of reflex irritation, as phymosis, parasites, etc., should be eliminated, and the bowels carefully regulated. The author believes in arsenic, administered from the earliest development of symptoms. For a child of eight years commence with 3 minims of Fowler's solution tid., p.c., gradually increasing until at the end of seven days the child is receiving half a dram per diem. Rankin does not hold with the heroic doses of from 15 to 75 drops at a single dose, nor with Eulenberg's suggestion of hypodermic administration, the emotional disturbances caused in children by the latter method overbalancing the better effects claimed by the larger doses. The garlic odor imparted to the breath mitigates strongly against the use of cocodylate of soda. Chapnir suggests that arsenious acid be used thus: 0.1 gram of sodium chloride is added to 0.005 grams of the arsenious acid, and the mixture triturated with 10 grams of fresh butter and administered on bread at meal hours.

In case of idiosyncrasy to arsenic, sulphate of zinc in doses up to 5 or 6 grains three times daily to a child of ten years, latter drug to be of service must be administered in doses of 10 to 20 grains every six hours to a child of the above-mentioned

age. Trousseau suggests strychnine, especially in the later stages, and here there is no doubt as to its value.

Anemia, restlessness, the rheumatic diathesis, must receive the usual treatment. In severe cases more relief can be got from chloral hydrate than from perhaps any other drug. It is frequently combined with the bromides. Trional and sulphonal have also earned the right of recognition. Ringer recommends conium juice, but its effect on the digestive organs frequently prevents its use. It may be necessary to use restraint. Local applications, hot and cold, have their place. Finally, during convalescence the greatest care is necessary, and nothing which will contribute to the general health should be forgotten.

### The Stomach in Nephritis.

The earliest investigations on gastric digestion in patients the subject of nephritis were made by Biernacki. On the basis of the examination of a large number of nephritics, he concluded that nephritis in general causes a decrease in gastric secretion ranging from a slight reduction in hydrochloric acid to its total absence, and accompanied by proportionate reduction in the ferments. The more severe the nephritis the greater was the reduction in these elements. He found, moreover, that in general the amount of hydrochloric acid in the gastric contents and the amount of urine were proportionately decreased or increased. Gastric motility he found to be increased. Biernacki thinks the depressing action of retained metabolic products on the secreting glands is responsible for the diminished gastric secretion. The hypermotility he accounted for in two ways: (1) By the irritant action of retained metabolic products on the motor nerves; and (2) by an attempt on the part of the body to compensate for the gastric catarrh by inducing the stomach to empty itself more readily than normal, so as to prevent gastric fermentation. This increased motility is not infrequently seen in catarrhal gastritis unassociated with nephritis, and probably accounts for the absence of subjective symptoms in many patients suffering with gastric catarrh. Vierhuff was able to confirm the presence of catarrhal gastritis in nephritis by observations at autopsy.

Raulot-Lapointe, working on the same subject, came to the conclusion that in acute nephritis there is hypoacidity, and that as the nephritis improves there is a gradual return of the gastric secretion to the normal. At times, as the nephritis was in the process of repair, he noted a hyperacidity, which he interpreted



as an attempt of the body to rid itself of an excess of chlorine, which the kidneys, in their abnormal state, were unable to excrete. In chronic nephritis he found that when the paranchymatous element predominated there was hyperchlorhydria and increased motility. When the intestinal element predominated, hyperchlorhydria was the rule.

Raulot-Lapointe goes so far as to consider hyperchlorhydria an indication of a latent chronic intestinal nephritis, certainly a most extreme view.—*Progressive Medicine*, Dec., 1908.

### **Exo-Cardial Murmur.**

J. Edward Squire describes a murmur of the cardio-respiratory variety, not infrequently heard just below and internal to the tip of the left scapula.

It is due to a rhythmical augmentation of the respiratory sound, produced by the contraction of the left ventricle of the heart pressing on the neighboring lung tissue. Murmurs more difficult of interpretation of the same type also occur over the incisura cardiaca and also in the neighborhood of the aortic area. These murmurs are more frequent than is usually recognized. They are of a soft, blowing character, of low intensity, and fairly high-pitched, modified by the respiratory acts. In 27 cases analyzed by the author the sound in 16 was purely inspiratory in time, expiratory in 4, and heard throughout the whole cycle in 7; also in the majority it disappears in a period of apnea. Finally, it is inconstant and varies from day to day.

These murmurs apparently are always associated with general loss of tone, but beyond this have no clinical significance.—*B. M. J.*, Oct. 10, 1908.

### **Neuritis.**

H. Burton Stevenson has reported 37 cases of the above disease treated with benefit by nitroglycerine given in doses of 1-100 grain every eight hours at the commencement and the intervals gradually decreased until the patient is getting the same dose every three hours. The flushing, etc., may be controlled by bromides. Its use appears not to be limited to acute attacks.

### **Hyperidrosis.**

Gebhardt, in the *Pester. Mediz. Chirurg. Presse*, June 28th, 1908, suggests the use of 3 per cent. lysol in water, or equal parts of water and alcohol, sponged on the skin and allowed to

dry without use of a towel, in the treatment of sweats, especially those of tubercular origin. The sponges are given daily for four or five days. The results are often apparent for several weeks following. It appears to be equally effectual in the more local forms, as, for example, the foot sweating.

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## OBSTETRICS AND GYNECOLOGY.

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IN CHARGE OF ADAM H. WRIGHT, K. C. M'ILWRAITH, FRED. FENTON  
AND HELEN MACMURCHY.

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### **Puerperal Inversion of the Uterus.** BY A. SCHONBEK (*Zentralbl. f. Gyn.*).

The most frequent cause of traumatic inversion is traction on the cord. An abnormally heavy placenta is a predisposing cause, especially if inserted into the fundus. If a portion of the placenta is adherent to the fundus, traction on the remaining separated portion is liable to produce inversion. Even expression of the placenta by Credé's method may produce inversion if strong pressure is made when the uterus is relaxed. Thus massage should be employed until the uterus is firmly contracted. The writer has seen 2 cases of traumatic puerperal inversion within 15 months among 1,500 labors.

CASE 1.—A woman, aged 33, was admitted to hospital at 10.45 p.m. for profuse post-partum hemorrhage. There had been three previous labors, after each of which the adherent placenta was removed manually. On this occasion a living child was born at 8 p.m., two hours after the onset of pains. There was slight hemorrhage, which was arrested by massage of the uterus. As it recurred one and a half hours later a midwife attempted to deliver the placenta by traction on the cord. Suddenly the placenta appeared between the thighs. It was attached to the apex of a tumor (the inverted uterus). There was profuse hemorrhage. A practitioner, who was called in, detached the placenta and pushed the uterus into the vagina.

The woman was unconscious, pallid and pulseless. There was slight hemorrhage from the vagina. Immediately above the vulva was a rough, hard body of the size of a fetal head, and high up above it was the edematous, dilated os. The inversion was reduced with some difficulty with the clenched fist. The



uterus was irrigated and after ergotine injections contracted satisfactorily. No anesthetic was given as the woman appeared moribund. Intravenous and hypodermic injections of normal saline solution were given with the other usual remedies for collapse, but the pulse did not become perceptible until 5 a.m. Recovery was then rapid.

CASE 2.—A woman, aged 25, was admitted to hospital collapsed from post-partum hemorrhage. A previous labor had been normal. On this occasion a living child was delivered without difficulty. Fifteen minutes later there was considerable hemorrhage, and a practitioner attempted to express the placenta. Suddenly the uterus disappeared from under his hand, and reappeared in an inverted condition between the thighs with the placenta at the apex. Alarming hemorrhage occurred. The placenta was detached, and the inverted uterus was placed in the vagina.

The woman was collapsed. The pulse was just perceptible and 150. The local condition exactly resembled that found in Case 1. The inversion was reduced with the clenched fist without the slightest difficulty. There was a slight rise of temperature during the puerperium, but recovery was rapid, and mother and child were discharged in good health fourteen days after admission.

Two years and nine months later this woman was delivered of a child. There was slight postpartum hemorrhage and an attempt was made to express the placenta. The uterus at once descended so deeply into the pelvis that the os was visible at the vulva and a distinct depression was formed at the fundus. As hemorrhage continued the placenta was removed manually. It was situated on the anterior wall and was slightly adherent. The puerperium was uneventful.

The cases show that in apparently desperate cases immediate reposition of the uterus should be performed.

### **The Examination of Patients During Pregnancy.**

The desirability in her own interests of a prospective mother submitting to at least one pelvic examination during gestation is now not disputed by anyone, though many practitioners shrink from recommending it on account of the suspicion and reluctance with which the suggestion is still only too often regarded. But the advantages of the practice are so numerous that it is incumbent on the obstetrician engaged at least to point out that the very highest professional authority is unanimous on the

question. Unfortunately there are women whose prejudices are so inaccessible to reason that they will promptly betake them to another practitioner if this advice is offered, and they may find him too pliant to endorse the obstetric prudence of his neighbor, who may incur considerable odium as a consequence of the attempt to do his duty.

The ideal course with patients sufficiently enlightened to submit to it is to make a complete pelvic examination about the end of the third month of pregnancy, and another, which need only be abdominal, about eight weeks before labor is expected. At the first examination, if the patient is a primigravida, the most important information required is as to the capacity of the pelvis. Broadly speaking, if it is not possible to reach the sacral promontory, and so to measure the diagonal conjugate, the pelvis may be regarded as unlikely to offer any obstacle to delivery: if it is possible to measure this dimension, the true conjugate may be deduced and any requisite measures concerted. Besides the estimation of the conjugate, there is also to be noted any abnormality of the pelvic viscera, such as retroversion of the uterus, fibroid of the uterus or cervix, and so on. In a multigravida the history of previous labors is more valuable than the exact estimation of the pelvic diameters, but this does not really abrogate the necessity for examination. For carcinoma of the cervix, though very rare in combination with pregnancy, is not unknown, and ovarian cysts, fibroids, and other obstacles to labor may have arisen since the last confinement.

It must be emphasized that this examination must be conducted with all due gentleness, for there are women in whom the slightest roughness will set up a miscarriage, just as there are others in whom it seems almost impossible to excite one. It is also to be remembered that the discovery of a retroverted uterus does not justify interference unless it is giving rise to symptoms; most cases restore themselves spontaneously, but it should be explained to the patient not to delay in seeking treatment if any symptoms of incarceration arise.

External measurements are unluckily of little use in detecting moderate or slight degrees of pelvic contraction. It is quite possible for the interspinous and intercrystal measurements to be ten and eleven inches respectively, and even in some cases more, and yet for the conjugate to be half an inch or so less than the normal. It may safely be said that if the second of these external measurements exceeds the first there is considerable pelvic deformity; but it is not safe to conclude the opposite when the normal ratio, and even the normal measurements, are



preserved. On the other hand, any deficiency of half an inch or more calls for careful investigation.

Nor is the diameter known as the external conjugate of great value; indeed, it is probably much more fallacious than those just discussed. An external conjugate which is less than 7 1-4 in. should arouse suspicion, and is often a sign of contracted true conjugate, but a good many cases of contraction have external conjugates exceeding this figure by a quarter, a half, and even three-quarters of an inch. Nor is the amount of diminution much guide to the pelvic inadequacy: sometimes an external conjugate of seven inches is found with a true conjugate very nearly normal; at others with extreme contraction.

At this examination the condition of the circulatory, respiratory, and urinary systems should be investigated by inquiry as to the past personal history, supplemented by physical examination if necessary.

The object of the second examination towards the end of the seventh (calendar) month is chiefly, in those whose pelves are known or believed to be normal, the correction of breech presentations; and in those known or suspected to have contracted pelvis the estimation of the relative sizes of the inlet and the fetal head. Twin pregnancies can also then be detected, and the necessary preparations ordered on a double scale. It is also possible to decide finally what shall be done in the case of tumors discovered earlier, and not removed by operation at the time. A small fibroid without symptoms does not demand operation during pregnancy unless there is reason to suppose that it will obstruct labor, and this it is often impossible to predict early in pregnancy. Later on it can be noticed whether the tumor has risen out of the pelvis to a position of safety, or whether, owing to its uterine relations or to adhesions, it is threatening to cause trouble.

Occasionally, too, a placenta previa may be discovered before it gives rise to symptoms; although there is then no immediate treatment to be ordered, it is of some advantage to be able to warn the patient of impending difficulty and to advise her what she must do as soon as hemorrhage commences.

There is one more point to mention. If there is any vaginal discharge noticed, other than the blandest leucorrhea, it should be treated. This measure of prophylaxis is almost as important as Cr  d  's method, and much more often neglected. By the adoption of these precautionary examinations in every woman who is sensible enough to take the word of her obstetrician for

their importance, we are consulting our own interests as well as those of the mother and her infant: on both grounds, but particularly on the latter, it is to be hoped that this growing practice may soon become universal.—*The Hospital*.

### The Gilliam Operation.

EDITOR SURGERY, GYNECOLOGY AND OBSTETRICS.

*Dear Sir*,—In the July number of your journal Dr. J. A. Polak, in a report of pregnancies following ventrosuspension of the uterus, makes this statement: "Alexander's and its modifications, Dudley's, Baldy's as well as Goffe's, and vaginal fixation, have had attention, until Gilliam's method of suspending the uterus was published. In this operation, we thought we had an ideal procedure, as it permitted not only the performance of the necessary intra-abdominal repair, needed by so many of these women, but allowed us to suspend the uterus by its natural ligaments. My records show that 33 of these operations were done, in which 6 primary suppurations occurred. Two patients became pregnant, and were delivered at term without complication. At the post-partum examination, a month after the confinement, their uteri were found low and retroplaced. A second objection is the likelihood of suppuration in the wound."

I am under obligations to Dr. Polak for giving me the opportunity to throw some light on this subject. I would state in the first place that so many suppurations, or indeed any case of suppuration following the operation of round ligament suspension of the uterus as devised by me is the result of faulty technic. I would not for a moment have it thought that I suspect Dr. Polak of carelessness or uncleanness, but I am assured that in some one or more particulars he has done violence to some of the more susceptible tissues in such a way as to weaken their resistance. In my earlier operations I had not infrequent suppuration of a most discouraging character, until it occurred to me that it might be due to the bruising and stretching of the subcutaneous fat in the effort to retract it from the face of the fascia. For years past I have made it my practice to clear the fat from the face of the fascia with a sweep of the knife, since which time I have had no suppuration. It was a surprise to me to find that after these suppurative cases the uterus remained in its normal position, showing that the ligamentous attachments had not been severed. Now as to the retrodisplacement after parturition. This, so far from being a fault, is a recommendation for the operation. The ligaments elongate in pregnancy



to accommodate themselves to the growing uterus (a happy thing for the woman), then after pregnancy undergo involution, slowly, to be sure, but in the course of time it will be found that the uterus is back in its place and the ligaments performing their function, just as before parturition.

D. TOD GILLIAM.

50 North Fourth St., Columbus, O.

### **Treatment of Appendicitis in Pregnancy.**

Rudaux (*La Clin.*, August 28th, 1908) considers that as a prophylactic measure all pregnant women should be cautioned against the dangers of constipation and advised as to the use of laxatives. The diet should be arranged on a simple and nourishing basis, and these precautions must be especially emphasized in the case of persons who have already suffered from appendicular attacks. Should an attack supervene, the patient must be kept in bed and deprived of all food and drinks, and neither purgatives nor injections should be administered. Subcutaneous injections of serum are given to relieve thirst, and an icebag is suspended over the right iliac fossa. If the abdominal pain is severe, injections of morphine or heroin are useful. When the symptoms have subsided after five or six days, a teaspoonful of Evian water may be given every half hour or hour, but not more than half a pint should be given during the day; on subsequent days a pint may be allowed. When the temperature is normal, spoonfuls of milk with either rice water or Evian water are given. After four or five days a large sound should be inserted into the rectum twice a day for half an hour, and at the end of a week small doses of olive or castor oil may be given to promote an action of the bowels. The icebag should only be removed when all tenderness has disappeared. Food is then given with great caution, and the patient is kept in bed for at least a month. Surgical intervention is only advised when symptoms of abscess or of general peritonitis are observed.—*Brit. Med. Jour.*

(We think surgical intervention is indicated as soon as diagnosis is made.—ED.)

### **The Hygiene of the Nipple.**

Lennhoff (*Med. Klin.*) recommends the use of a nipple clamp to prevent the dribbling of milk from the breast between the times of suckling. This clamp measures 7 by 4 cm., and is so thin that its weight is not noticeable, nor is its presence under-

neath the clothes perceivable. The pressure on the nipple can be delicately regulated, and experience has shown that no bad or disagreeable results accrue from its use, either to the nipple itself or to the milk secretion. The clamp is not worn continuously, but only when dribbling may be expected. A larger amount of milk is by its use available for the child, and in one case the author found that a child who, before the clamp was applied, appeared unsatisfied, afterwards became contented and quiet. The troublesome soiling of clothes by the milk is also avoided when the clamp is worn. If the clamp tends to slip off the nipple, its arms may be covered with a piece of thin rubber tubing. Lennhoff claims that the use of this clamp also tends to produce well-formed and useful nipples.—*Brit. Med. Jour.*

#### Hebotomy or Symphysiotomy?

Jeannin (*La Presse Medicale*) concludes that pubiotomy is superior to symphysiotomy for the following reasons: (1) It substitutes an osseous for an articular wound; (2) the technique is easy and the operation is performed in a less dangerous zone; (3) immediate accidents are less frequent and remote accidents are much more rare; (4) the mortality, both fetal and maternal, is much less; (5) in case of repeated intervention the operation can be performed on the opposite side.—*N. Y. Med. Jour.*

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## LARYNGOLOGY AND RHINOLOGY.

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IN CHARGE OF J. PRICE-BROWN.

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**Laryngology and Rhinology.** By J. Price Brown. Abstract of Symposium upon Atrophic Rhinitis and Ozena. New York Academy of Medicine (taken from *Laryngoscope*, June, 1908).

**The Herd Theory as an Etiological Factor.** By Clement F. Theisen (Albany).

The writer of this paper concludes from personal observation of sixty cases of atrophic rhinitis, that Herd's theory, that the disease has its origin in the accessory sinuses, is only to a limited extent true. Personally, he has made a careful investigation into the history of sixty of his own cases. Out of



these, fourteen were affected with accessory sinus disease, or about 23 per cent. Six out of the fourteen had maxillary sinus disease, two had frontal sinus disease, in one the sphenoid sinus was affected; while in nearly all of the fourteen cases the ethmoid cells were involved.

**The Pathology of Atrophic Rhinitis with Ozena.** By Braden Kyle. (Philadelphia.)

This writer believes that we can have ozena without atrophy, and also, atrophy without ozena. Hence, there may be two distinct pathological conditions. Also, that there are many causes which lead to pathological changes that result in atrophy. When this atrophy is accompanied by ozena, it may arise either from an altered secretion of the glands of the mucous membrane, or from an involvement of an accessory sinus. The latter may be either primary or secondary. While he has seen many cases of atrophic rhinitis with ozena in which there was no involvement of the sinus, he has seen a number of cases of ozena without atrophy in which the sinus was involved.

In examining sections taken from atrophic cases that were ozenic, the tissue after removal would retain its characteristic odor; indicating that both the secretion and the gland structure were involved in the organic chemical changes incident to the disease. At the same time atrophy of the nasal tissues may occur without the usual concomitant of ozenic odor.

**The Treatment of Atrophic Rhinitis, including Ozena.** By Robert Myles. (New York.)

The clinical history of typical atrophic rhinitis is divided into three stages:

1. The muco-purulent stage of childhood.
2. The incrustation or ozenic stage, which develops between the fourth and sixteenth years.
3. The adolescent stage, which may be observed from the age of 25 years to the end of adult life.

Myles accepts Bosworth's theory that the above first-mentioned stage is the cause of atrophic rhinitis. But he affirms what Bosworth does not believe, when he says that the purulent rhinitis of childhood is contagious.

In the treatment of this first stage he advises clearing the nasal passages by the use of warm alkaline sprays or solutions by means of pipettes, after which the nurse is instructed to

insufflate into the nasal passages minute quantities of powdered boracic acid and aristol; the treatment to be repeated once or twice a day. After the morning treatment vaseline ointment of ichthyol or nosophen is advised to be used also.

The treatment of the second stage consists in removing the malodorous crusts by the use of washes and cotton carriers, prevention of re-formation by regularity of treatment, and operations upon accessory sinuses when necessary. For home treatment the patient should be thoroughly instructed how to personally cleanse the passages, and on the necessity of repeating the treatment at regular intervals under the physician's directions.

In the third stage, particularly when the sinuses are involved, operation upon the affected ones is usually followed by marked reduction in the amount of secretions, and also in the severity of crust formation. This, of course, is in addition to the systematic cleansing treatment.

**The Treatment of Atrophic Rhinitis.** By George L. Richards. (Fall River.)

In speaking of treatment, Richards dwells upon the advisability of combining alterative internal treatment with the local, in dealing with atrophic rhinitis, such as the various iodides. In local treatment, besides naming a long list of deodorants and stimulants which from time to time have been used, he mentions Grossman's application of X-rays as a new method of treatment which has been found of service. The benefits which have been reported from the intra-nasal injections of paraffin are also referred to.

Of course, like all other writers, Richards insists upon the thorough cleansing of the passages by lavage in one form or another; the solutions used being aseptic and of blood temperature; the passages to be subsequently freed of all secretions by means of cotton-tipped probes.

**A Fatality Subsequent to Cauterization of the Inferior Turbinal.**

A Thooris, *Revue Hebdomadaire de Laryngologie et Otologie et de Rhinologie*, January 11, 1908.

A man aged 35 had the left inferior turbinal body operated upon by galvano-cautery for turbinal hypertrophy. Eighteen days later severe hemorrhage occurred from that side, which was not controlled until the whole passage was methodically plugged. Death took place thirty hours later, being preceded by several attacks of syncope.



**Atrophic Rhinitis and Ozena.** By Clarence Rice. (New York.)

This writer dealt chiefly with the etiology and treatment. He believes that it is useless to classify atrophic rhinitis and ozena as two distinct diseases, as no one has ever proved that their pathological processes differed from each other. Hence the two names apply to the one condition. The distinction, however, that he would draw would be to divide the disease into acute atrophic rhinitis and chronic atrophic rhinitis, the acute being the purulent rhinitis of childhood, and the chronic the full development of the disease in more mature life.

(Query: Can any disease be considered acute when it extends continuously over a term of years, as purulent rhinitis frequently does?)

Rice also believes that the purulent rhinitis of childhood, described by Bosworth as the primary cause of the atrophic lesion, is really, in the majority of instances, a subacute bilateral sinusitis; and that all forms of sinusitis are contributing causes to atrophy of the nasal tissues. The possible bacillary cause of the disease is referred to; also the fact that the number of cases that exist are gradually becoming less, probably due to improved hygienic conditions. Heredity he considers to be a strong etiological factor, consisting as it does in a feeble power of resistance.

In treatment, sanitary measures and out-of-door life are insisted upon; combined with regular washing and oiling of the nasal chambers. The sea air and air of the piny woods are excellent adjuvants to regular treatment.

**Hemorrhage Following Quinsy; Ligation of the Common Carotid; Recovery; with a Study of Fifty-one Cases of Hemorrhage in Connection with Pharyngeal Suppuration.** James E. Newcombe. (New York.) *Journal of Laryngology*, June, 1908.

In a well-analyzed and carefully-prepared paper, the writer gives a history of all the cases heretofore recorded, including his own, which recovered. Of the total number 23 recovered and 28 died, a percentage of 54.8. A very large majority of the cases were males and one-half of them occurred in the third decade of life. In some of the cases hemorrhage occurred by spontaneous rupture; in others, from some part of the abscess cavity, directly after opening it with the lance; and in a number from secondary hemorrhage.

One feature of peritonsillar abscess is its virulence, due to

its proximity to the air passages. The mouth and throat are hot culture beds to bacterial life, due to the constant flushing of inspiration and expiration. Hence the pus and gas evolved, being in contact with arterial walls, have a destructive effect upon their muscular and elastic fibres. According to Monod, nature attempts to remedy this defect by inducing hypertrophy of the tunics of the vessels; but it is often ineffectual. Under the pressure of cough and muscular effort slight leakage occurs, soon followed by formidable rent in the arterial coats and the production of dangerous hemorrhage.

In the treatment of the fifty-one cases, ligation of the common carotid was practised sixteen times, resulting in eleven recoveries and five deaths. Ligation of both external carotid and internal carotid, once, with recovery. Ligation of all three, once, with recovery.

As will be noted, the usual operation is the tying of the common carotid. This is followed by the large majority of surgeons where operative treatment is called for; and is justified by the facts—that the bleeding point can rarely be determined, and that ligation of the external carotid would be in the immediate neighborhood of sloughing tissue.

**Case of Congenital Stridor.** Dundas Grant. *Journal of Laryngology*, June, 1908.

This is the case of a boy, aged three and a half years, who all his lifetime had suffered from inspiratory stridor. In perfect tranquility the difficulty of respiration ceased, but was renewed upon the slightest effort. Under chloroform, the larynx was examined, when it was found that inspiration was accompanied by insuction of the ary-epiglottic folds.

There was no indication for tracheotomy or other operation, and it was believed that as the larynx of the child grew, the present difficulty would be overcome by nature's effort.



## Editorials.

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### THE PROPHET IN HIS OWN COUNTRY.

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In an interesting communication from Dr. McClanahan, of Omaha, Neb., he says that he is satisfied that as the result of the work of Wright and all of his pupils, there will come much valuable information to scientific medicine, and that in the years to come his work will be credited a place in medical history along with that of Pasteur and Koch. He also tells us that his work does not receive the credit in London that it merits, and he thought of the scripture saying, "A prophet is not without honor save in his own country." He heard much in praise of Wright and his work in Vienna and Berlin, but usually only criticism in London.

We do not wonder that the American physician was surprised at the attitude of the profession in London towards Wright. Those who know London well, however, will not be surprised. We know that the largest city in the world contains a number of great and broad physicians and surgeons, but unfortunately it contains also a vast army of the smallest and meanest medical practitioners in the universe.

We had a notable example of their littleness in the case of Lister. His great work in Glasgow between 1860 and 1876 was highly appreciated in London, especially by the minority. As a consequence he was induced to go to King's College Hospital, in that city, in the latter part of 1876. The majority of surgeons, however, did not extend the "glad hand." Some of them endeavored to belittle his results so far as they were published. Many of those who criticized his methods had no clear conception of the principles underlying his system of treatment. The spray was exalted to such an extent that its use was considered by many to be Listerism, while it was in reality only one, and that the least important, feature of his treatment. At that time many of the continental surgeons, especially those of Germany, understood Lister and his methods better than the majority of his confrères in London.

Some prominent surgeons went so far as to say that he suppressed statistics, because "he had none that he would not be ashamed to produce." The following is an example of some of the unpleasant things insinuated: "The publication of isolated cases, however good, proves nothing, whereas the withholding of the whole suggests much." These were the words of Mr. Bryant, and were endorsed by Mr. Savory (afterwards Sir William Savory), who quoted them with approbation in his address on surgery at the Cork Meeting of the British Medical Association in 1878.

Lister, however, lived long enough to change all that; his industry, dignity, patience and sweetness overpowered all opposition and jealousy.

Let us hope that Wright will be equally fortunate, and that he will live long enough to complete his great work, and that in due time his efforts will be properly appreciated.

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### OPERATIONS FOR INTERNAL HEMORRHAGE.

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Dr. Sierra, a Chilian physician, recently asked the question about the origin of Lawson Tait's operation for internal bleeding. *The British Medical Journal* looked into the matter, and, thinking that the subject was of interest to others besides the inquirer, published the result of its investigation.

The history of this important subject is certainly very interesting, and is given in detail in Tait's work on Abdominal Surgery. In the summer of 1881, Mr. Tait was asked by Mr. Hallwright to see with him in consultation a patient who had arrived by train from London, in a condition of serious illness. The illness had been diagnosed by Mr. Hallwright as probably hemorrhage into the peritoneal cavity from a ruptured tubal pregnancy. Tait agreed, and Hallwright suggested that he should open the abdomen and relieve the ruptured tube. To use Tait's words, "the suggestion staggered me, and I am ashamed to have to say I did not receive it favorably." I saw the patient again in consultation with Mr. Hallwright and Dr.



Jas. Johnson, and again I declined to act upon Mr. Hallwright's request, and a further hemorrhage killed the patient. The post-mortem examination revealed the perfect accuracy of the diagnosis. I carefully inspected the specimen which was removed, and I found that if I had tied the broad ligaments, and relieved the ruptured tube, I should have completely arrested the hemorrhage, and I now believe that had I done this the patient's life would have been saved. In 1883 I saw another case with Mr. Spackman, whose patient was clearly dying from hemorrhage, and he at once advised abdominal section. Tait operated at once. He admitted that he wasted much time in separating the tubes and ovaries, and as a consequence the patient died. He decided in future to make at once for the source of hemorrhage, the broad ligament, and tie it at its base and then remove the ovum and clots at leisure. By 1888 he had operated in this way in 39 cases with one death, and was quite justified in thinking that he had "really achieved a surgical triumph."

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### THE NEW PROFESSOR OF PHYSIOLOGY

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Dr. Brodie, the new Professor of Physiology in the University of Toronto, comes to us in the midst of a useful and distinguished career. The University has been fortunate in obtaining his services, and our gain is the loss of several English Universities, Colleges and Laboratories. He was appointed Lecturer in Physiology at the London (Royal Free Hospital) School of Medicine for Women in 1899, and, as we learn from their *Magazine*, he has held "amongst others, the following appointments: Lecturer on Biology, King's College, London; Demonstrator of Physiology at King's College, and the London Hospital Medical College; Lecturer on Physiology, St. Thomas's Hospital Medical School; Director of the Research Laboratories of the Royal College of Physicians, London, and of the Royal College of Surgeons, England; Professor-Superintendent of the Broom Institution, University of London; and Professor of Physiology at the Royal Veterinary College. Dr. Brodie has

also held Examinerships in Physiology for the Examinations in Medicine in the Universities of Cambridge and Durham, for the Natural Sciences Tripos, Cambridge, for the Primary Fellowship of the Royal College of Surgeons, England, and for the Conjoint Examining Board of the Royal Colleges of Physicians and Surgeons, England.

"In our own school he has taken the keenest interest in all matters concerning it and has been of great service to us by his wide outlook and by his help and advice in the School Committee, of which he has been a member since he came to the School and of which he was appointed Chairman for the two years 1906-1908.

"But it is especially as a Physiologist that we have been so proud to have him on our staff, and those students who have had the privilege of working with Dr. Brodie will realize that his teaching was of the kind and had the stimulus that can only be given by one who is actively engaged in making the science which he is teaching. Dr. Brodie is the author of *The Essentials of Experimental Physiology*, of the Physiological articles in a *Text-Book of Medical Practice* edited by William Bain, M.D., and of a very large number of papers giving the results of research work on a very wide range of physiological subjects. In these papers he has made important contributions to knowledge as regards the innervation of the bronchial muscles and the conditions of lung circulation, the secretion of urine and the gaseous metabolism of the kidney, coagulation of the blood and other questions, including some dealing with certain morbid conditions of value in relation to diseases of man. He has also designed a large number of physiological apparatuses and devised methods of investigating physiological problems which are widely used in laboratories in our own country and abroad. Recognition of the value of this work was shown in his election as a Fellow of the Royal Society in 1904, and a Fellow of King's College, London, in 1906. Dr. Brodie has the further valuable power of not only doing a great deal of work himself, but of inspiring others to work in his laboratories, as evidenced by the numbers of those, including many foreigners, who have come to work under him, and to



whom he can always suggest interesting problems to be worked out. Of later years a great deal of his research work has been done in our own laboratories and this has been of incalculable value to the spirit and kind of work which has been done in physiology in the School.

"We shall miss profoundly from the School the charming and kindly personality of one to whom of late it has been natural to turn with a certainty of receiving help and sympathy in all questions concerning the School and the students. But while we realize how much we are losing in losing Dr. Brodie, we hope that our loss will be his gain, in that in Toronto he will have the opportunity, as he has the capability, of making a School in Physiology which shall be second to none, and we offer to Dr. and Mrs. Brodie our very best wishes for their happiness and success in their new life."

For our own part, we can only hope with all possible sincerity and kindness that the wishes of our contemporary, expressed with such sympathy and appreciation, will be fulfilled to the utmost. Dr. Brodie has already received a cordial welcome among us, and we have reason to believe that he already feels himself at home and among friends here under the old flag and in the world-wide brotherhood of Science, Art and Medicine. The coming of Mrs. Brodie in a few months to make a Canadian home here is greatly looked forward to both by those who have already had the pleasure of meeting her and the Professor, and by all the new friends whom he has made since his recent arrival.

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## NOTES.

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At the last meeting of the Academy of Medicine, held Nov., 1908, a portrait of the late Dr. John Fulton, Professor of Surgery in Trinity Medical College, was presented to the Academy of Medicine by his daughters. Miss Fulton unveiled the portrait and Dr. G. A. Bingham made the presentation speech.

**Toronto Hospital for Consumptives.**

Mr. Gage, Chairman of Trust, has issued the following statement about the position of the Toronto Hospital for Consumptives:

"The burden of a large debt is pressing upon us and we must secure money to provide food, nurses and doctors for the sick ones.

"For *months every bed has been filled* and to-day nearly a score of new applicants are seeking admission. These poor sufferers are in an unfortunate plight—in their poverty and sickness they cannot find entrance into other hospitals through fear of contagion; they apply to the Toronto Free Hospital for Consumptives as their only refuge. So urgent are they that scarcely a day passes without some of these sick ones repeating their request and begging to be admitted.

"The only answer that can now be given to their pleading is, '*Sorry we cannot help you—every bed is occupied.*'"

"To meet this demand, provision for at least 25 new beds should be made at once, and \$20,000 will be required to cover this outlay and cost of food and nursing for 90 patients.

"A correspondent describes one of these waiting cases as: 'A young girl of 17, far gone in consumption—the eldest of a family of six and the wage-earner of the home—the father, through drink, is in prison, and the mother gains a small pittance at her daily work.'"

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The Canadian Medical Exchange, for the purchase and sale of medical practices and property, conducted by Dr. Hamill, medical broker, wishes to remind physicians who desire to make a change that the present season is a good time to list their offers with him, as probably more medical sales are made during January and February than any other months in the year.

Prospective medical purchasers can secure the list of practices for sale simply by agreeing to treat everything as confidential and acting honorably. For the past fourteen years a large percentage of all the medical sales made in Canada have been conducted through this Exchange, and we believe it offers a short cut for either vendor or vendee to secure the goal desired.

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The forty-second annual meeting of the Canadian Medical Association will be held in Winnipeg, Man., on the 23rd, 24th and 25th of August, 1909. The Chairman of the Local Committee of Arrangements is Dr. H. H. Chown, Winnipeg, and



the Secretary of same, Dr. Harvey Smith, Canada Life Building, Winnipeg. President, Dr. R. J. Blanchard, Winnipeg. General Secretary, Dr. George Elliott, 203 Beverley St., Toronto. We are requested to state that those desiring accommodation in the hotels of the city at that time should write early for hotel accommodation, because the British Association for the Advancement of Science will meet in Winnipeg at or about the same time.

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### **Canadian Medical Protective Association.**

We desire to remind our readers that there is such a thing as the Canadian Medical Protective Association, which is in some respects the most important medical organization in Canada.

The annual fee for membership is \$3.00, which is, in fact, a very cheap form of insurance against the worries caused by malicious malpractice suits.

Every young physician should join this Association the day before he enters active practice. We should strongly advise the large majority of our own practitioners of medicine who are at present non-members to join at once.

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### **Medical Education.**

At the session of the Ontario Medical Council in July, 1908, a committee was appointed to deal with the whole question of medical examinations and curriculum, and also reciprocity with other provinces and Great Britain, and to report at a special session of the Council to be held in November, 1908.

We trust this committee will be broad-minded enough to recognize that the university degree in medicine given by the teaching bodies in this province ought to carry with it the right to practise medicine in the province. This is the arrangement recognized in Great Britain by the British Medical Council and practically also recognized in the provinces of Quebec and Manitoba. Undoubtedly the Medical Council ought to retain control and this they could do by appointing a board of assessors to sit with the examiners or pass upon the examinations of the universities, and report to the Council. It is perhaps too much to expect that this arrangement can or will be made at once, but we sincerely trust that consideration will be given such a view, and that at least some steps in this direction will be taken at the November meeting. As to reciprocity, Ontario has much to gain and little to lose by adopting a basis for reciprocal registration with other provinces and Great Britain.—*Queen's Medical Quarterly.*

**Passed in Medicine—Ontario Medical Council Announces the Results of Examinations.**

**FINAL.**

R. G. Armour, Toronto; W. Bethune, Ryckman's Corners; F. R. Bennetto, Palmerston; E. Blanchard, Leaskdale; W. A. Broddy, Uxbridge; Nancy Rodger Chenworth, Belwood; J. A. Dixon, Almonte; F. J. Donovan, Gananoque; A. G. Fleming, Toronto; W. J. Glanfield, Jarvis; F. C. Harrison, Toronto; J. F. Hazlewood, West Toronto; E. G. Hodgson, Toronto; A. E. Jones, Toronto; C. V. Jamison, Guelph; H. W. Johnston, Midland; H. M. Lackner, Berlin; W. S. Lyman, Ottawa; J. A. MacLeod, Priceville; A. D. MacMillan, Finch; F. S. Minns, Weston; W. Morrison, Ashgrove; F. R. Miller, Toronto; H. A. Nickle, Madoc; A. L. McLennan, Lancaster; A. McDonald, Scotch Line; J. E. McGillicuddy, Watford; Neil McLeod, Moose Creek; R. K. Paterson, Renfrew; A. J. Prentice, Drumbo; C. A. Publow, Ithica, N.Y.; A. C. Ricker, Dunnville; W. S. Scheck, Hamilton; J. A. Stewart, Renfrew; P. L. Tye, Goderich; E. G. Turnbull, Branchton; E. L. Walker, Glencoe; H. Walker, Bealton; C. E. Wilson, Napanee.

**INTERMEDIATE.**

R. G. Armour, Toronto; H. B. Andrew, Toronto; P. G. Brown, Toronto; O. S. Craise, Petrolea; F. J. Donovan, Gananoque; J. A. Dixon, Almonte; W. R. Fader, Windsor; W. M. Fielding, Toronto; W. J. Glanfield, Jarvis; G. P. Howlett, Toronto; E. G. Hodgson, Toronto; A. E. Jones, Toronto; W. Krupp, New Dundee; W. S. Lyman, Ottawa; J. A. MacLeod, Priceville; A. J. MacKinnon, Star; F. S. Minns, Weston; W. Mabee, Toronto; W. Morrison, Ashgrove; F. R. Miller, Toronto; A. McDonald, Scotch Line; J. E. McGillicuddy, Watford; J. A. McGibbon, Forest; A. L. McLennan, Lancaster; P. L. Tye, Goderich; E. G. Turnbull, Branchton; H. Walker, Bealton; J. H. Wood, Florence; G. W. Williams, Aurora; C. E. Wilson, Napanee; G. H. Patterson, Stella; A. J. Prentice, Drumbo; W. S. Scheck, Hamilton.

**PRIMARY.**

J. R. Fraser, Lakefield; J. R. Gibson, Millbank; C. G. Heyd, Toronto; W. S. Lyman, Ottawa; R. D. Lane, Kinlough; W. W. Lailey, Toronto; F. R. Miller, Toronto; J. A. McGibbon, Forest; J. D. McDonald, Langton; A. L. McLennan, Lancaster; G. H. Patterson, Stella; T. W. Peart, Freeman; H. G. Peltier, Fort William; Jennie Smillie, Hensall; Estella O. Smith, Toronto; J. H. Thompson, Toronto; C. E. Wilson, Napanee; F. S. Young, Forfar.



## Personals.

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Dr. C. M. Hincks (Tor. '07) is practising at Campbellford.

Dr. C. C. Cragg (Tor. '03) is practising at Lethbridge, Alberta.

Dr. H. A. Abraham (Tor. '06) has removed from Kenora to Newfoundland.

Dr. F. M. Campbell has removed from Rossland, B.C., to La Crosse, Wash.

Dr. Jno. Caven, of Toronto, will sail from New York for Naples, January 20th.

Dr. Delaske Marr, of Ridgetown, has been appointed Associate Coroner for Kent County.

Dr. R. G. MacDonagh, of Toronto, will sail from New York for Rio de Janeiro, Brazil, January 16th.

Dr. Chas. A. L. Reed, of Cincinnati, has received the Order of Chevalier in the Legion of Honor in France.

Dr. E. Fidler (Tor. '07) has joined the staff of the State University of Minnesota in the Department of Pathology.

Dr. Percy W. Saunders (Tor., '02) is pathologist in the City of London Hospital for Diseases of the Chest, London, Eng.

Dr. C. F. Moore, of Toronto, after spending several weeks at various hospitals in the United States, returned to his home Dec. 20th.

Dr. E. C. Wilford (Tor. '08) is now in Edinburgh doing post-graduate work, and expects to go shortly to China as a medical missionary.

Dr. William Warren Potter, of Buffalo, was elected President of the New York State Board of Medical Examiners at the annual meeting, held at Albany, Nov. 16th.

Dr. K. H. VanNorman (Tor. '04), formerly interne surgeon Toronto General Hospital, after spending a year in post-graduate work in England, has now gone to Germany.

Dr. A. E. Howard (Tor. '07), who was house surgeon at St. Michael's Hospital for a year, has been appointed surgeon to the "Empress of India," which sails between Vancouver and Japan.

Dr. Roswell Park, of Buffalo, was entertained at a dinner at the Hotel Iroquois, on the evening of Dec. 7, 1908, in commemoration of his 25th anniversary as a teacher of surgery at the University of Buffalo.

Dr. A. B. MacCallum, of Toronto, attended the Dublin Meeting of the British Association for the Advancement of Science. While in Dublin the University of Trinity College conferred upon him the honorary degree of Doctor of Science.

Dr. Ernest C. Dickson (Tor. '06), who was for a time assistant resident physician at Johns Hopkins Hospital, Baltimore, has been appointed first assistant in Pathology in the Medical Faculty of Leland Stanford University, San Francisco.

The following gentlemen have passed the examination admitting them to membership in the Royal College of Surgeons, England: C. R. Rumming, E. N. Gideon, A. M. Rolls, G. S. Strathy, W. Taylor, of Toronto University, and E. A. Lindsay, of McGill University.

Dr. Wishart, who has been lately appointed Chief of the Ear, Nose and Throat Department of the Toronto General Hospital, has on that account resigned his position as Chief of that Department in the Hospital for Sick Children, which has devolved upon his junior in the service, Dr. Geoffrey Boyd. Dr. Wishart has been elected a member of the Royal Society of Medicine, London.

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## Marriages.

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On July 7th, at Liverpool, Eng., Dr. H. E. Roaf (Tor. '02), of the University of Liverpool, to Miss B. S. Herdman, of Liverpool.

On Sept. 9, at Vancouver, B.C., Dr. W. C. Achison (Tor. '07), of Washington State, to Miss M. A. Armour.

On Sept. 10, Dr. J. M. Park (Tor. '03), of Marshville, to Miss M. Ketchison.

On Sept. 11, Dr. A. G. Huntsman (Tor. '07), to Miss F. M. Sterling.



On Sept. 17, at Hessle, Eng., Dr. J. E. Lehmann (Tor. '93), of Winnipeg, to Miss Ida Hillers.

On Sept. 30, at Dunnville, Dr. Herbert Walker (Tor. '07), of Bealton, to Miss Flora Taylor.

On Oct. 7, Dr. Paul L. Scott (Tor. '00), of Toronto, to Miss M. A. Wilson, B.A.

At St. Catharines, Dec. 17, Dr. W. O. Stewart, of Guelph, to Miss Lilla Sheppard.

At Montreal, on Dec. 17, Dr. G. A. Winters, of Toronto, to Miss Ruth Macfarlane.

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## Obituary.

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### JAMES ROBERT DRYDEN, M.B.

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Dr. J. R. Dryden died at his home in Guelph, Dec. 2nd, after an illness of some weeks, aged 53. He received his medical education in the Toronto School of Medicine, and graduated M.B. from the University of Toronto in 1879. After practising for some time at Rockwood, he went to New York for post-graduate and special work, and on his return to Canada he commenced practice in Guelph.

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### DONALD GILLESPIE, M.D.

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Dr. D. Gillespie, one of the best-known physicians in Central Ontario, died at his residence, Cannington, Dec. 22, aged 70. He had been attending to his practice up till noon on Dec. 20, when, not feeling well, he went to bed, and died the following morning at six o'clock. The cause of death was said to be heart failure.

He graduated M.D. from the University of Victoria College in 1860, and after a short stay in Manilla went to Cannington, where he practiced with much success for many years.

# The Canadian Practitioner and Review.

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No. 2

## Original Communications.

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### PYELO-NEPHRITIS IN PREGNANCY.\*

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By J. F. W. ROSS, M.D.,

Professor of Gynecology, University of Toronto.

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I must apologize to the Association for the fact that this has been called a paper; it is merely a note to draw the attention of the practitioners to a rare and serious condition.

The pregnant woman has many pitfalls to encounter, and not the least serious of these is pyelo-nephritis, the disease I propose to discuss shortly. In the literature of the subject there is not much to be found that is helpful to the practitioner or of much benefit to the student. The disease seems to have been to a very great extent lost sight of, and many works on obstetrics do not even mention it. One of the best references I find in Edgar, and even there the subject is not dealt with as fully as it might have been. The experience of any one man is necessarily limited, and we naturally turn to the larger institutions for information. In the Paris *maternité* they meet with about one case a year of pyelo-nephritis complicating pregnancy. On account of the rarity of the condition, I propose to give you in detail my experience.

In May, 1898, my attention was first called to this subject. A Mrs. B., advanced in pregnancy to the fifth month, showed evidence of ill-health. Pus appeared in the urine in very considerable quantity. She suffered from loss of appetite, headache, and some elevation of temperature. After a few weeks high fever and chills set in, with an increase of pulse. She went through with the pregnancy, and though very ill bore a living

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\* Read at meeting of Ontario Medical Association, held at Hamilton, Ont., 1908.

child and survived. Upon frequent subsequent examinations no pus was found in the urine, though there were at times traces of albumen. She became pregnant again in June, 1901, and when two or three months pregnant no pus was present in the urine. Gradually the old symptoms reappeared—pus and albumen in the urine, ill-health, loss of appetite, a haggard appearance, lemon-colored, waxy-looking skin. I advised the induction of labor and brought the patient to the city for that purpose, but the other consultant did not agree with my views of the case, and the patient was sent home to go on to full time. She was delivered and recovered, I believe, after a desperate illness. Owing to the action taken in the case, I have never seen the patient since, and can say nothing as to her subsequent condition.

The next case with which I was brought in contact was Mrs. R., a young married woman pregnant for the first time. When six months pregnant she was taken ill with pain in the right lumbar region. At first it was supposed that it might be connected with the appendix, but upon a more thorough examination after her admission into St. Michael's Hospital, the real nature of the trouble was discovered to be a pyelo-nephritis. I saw her in consultation with Drs. J. L. Davison and H. B. Anderson. She was then very ill with rapid pulse, high fever, and she looked very ill; the temperature was 105. I advised the emptying of the uterus, and passed a bougie to bring on uterine contractions. The recovery was uneventful. I lost sight of the case until she became pregnant for the second time, and again in the sixth month the old symptoms returned—high fever, rapid pulse, haggard appearance, pain over the right lumbar region, and pus in the urine. Her physicians, Drs. Davison and H. B. Anderson, being out of town, I saw her with Dr. Hendry, acting as locum tenens for Dr. Anderson, and again advised the production of premature labor. Soon after the uterus had been emptied pus disappeared in the urine, and she made a very rapid and uneventful recovery. Soon the bloom of youth returned, and she felt in perfect health. On the 16th of December, 1907, she presented herself at my office and said that she had just missed her menstrual period. I examined the urine and found it normal. She returned once or twice a month to enable me to follow up her condition upon the advance of pregnancy. Each specimen of urine was drawn from the bladder by means of a glass catheter and examined at once. About the third month of pregnancy bacteria (diplococci) were found in profusion in the urine, and a little later pus made its appearance. Her husband came to see me about her health, and expressed a wish that if



anything was to be done it should be attended to at an earlier period before she suffered so much pain. He stated that already she was delirious at night and was looking ill. I referred him to Dr. J. L. Davison, one of her attending physicians, for his opinion, and he also advised that the pregnancy be terminated. The patient was sent into St. Michael's Hospital, and when I saw her with Dr. Davison I was amazed at the change in her appearance. The same peculiar haggard look, with dark rings under the eyes, the unhealthy color and waxy appearance of the skin were very apparent. There was as yet but slight elevation of temperature, but the right kidney was now excessively tender on pressure. The left kidney was not tender. The uterus was emptied for the third time. I intend to sterilize the patient by removing a portion of each fallopian tube to prevent impregnation. This case was of particular value from a clinical point of view, owing to the fact that I was able to observe it during three successive pregnancies, and that the observations also covered the intervening periods.

The next case to be related is that of Mrs. P., admitted under my care in the Toronto General Hospital. She was 32 years of age, and had given birth to one child. She was pregnant four months. A sudden pain set in over the left kidney at the end of the third month of pregnancy; it was of a sharp, stabbing character, and did not radiate. The day after her entrance into the hospital, in the fourth month of pregnancy, a severe chill came on, and lasted for 45 minutes. She had, in all, four or five chills, at intervals of from 6 to 24 hours. When admitted temperature was 102 3-5, pulse 128, respirations 30—the urine contained pus, no casts were found, a trace of albumen was present. I append the temperature chart. The chills ceased, the health improved, and the patient is as yet under observation. She may go on to full time without any return of her serious symptoms, though this has not been my experience with similar cases. Even after delivery the patient is not necessarily out of danger, and the damage done may be of a permanent character. This is borne out by the history of the next case.

Mrs. C., 45 years of age, the mother of eight children. She had never had convulsions or swelling of the feet. When four months pregnant she had chills, but these disappeared. She had suffered from a good deal of soreness across the loins. In the last pregnancy the urine had been very scant—not a cupful in 24 hours, she said. On the 12th day after delivery she was seized with a severe pain over the left kidney, in the left lumbar region, and up the left side of the abdomen. A chill came on and was very

severe. Dr. Cleland saw her; she had high fever and the urine contained considerable pus. In this case the patient had a period of ill-health at the fourth month, and then she improved and went on until full time and was delivered. Twelve days after delivery she showed the severe symptoms that called for a consultation, and I saw her with Dr. Cleland. She had severe pain, a chill, elevation of pulse and temperature, and pus in the urine. The convalescence was rather slow. For the purposes of this paper I saw her a few weeks ago, and found no ill-health, no tenderness over the loins, and a very small amount of pus in the urine, indicating a permanent lesion.

In order to show the difficulties with which we have to contend, and to emphasize another phase of this condition, I relate the following case:—Mrs. G., age 20. She entered St. Michael's Hospital when four and a half months pregnant. She felt ill. Her temperature was elevated, varying from 100 to 103. Finding an abundance of pus in the urine, I advised that the uterus be emptied. This was objected to. I lost sight of the patient for a time, but when asked to see her again she was emaciated, looked as if in the last stages of septicæmia, and looked so ill that I hesitated to advise the induction of premature labor, feeling that it would be fraught with very considerable danger in the present condition of the patient. She was taken home, remained a week, and was readmitted to the lying-in department of St. Michael's Hospital in a desperate condition, and delivered of a still-born child. Labor set in without any interference. She lay abed for weeks, but at last regained her health. Some months later I catheterized her and obtained a specimen of urine. This was examined by Dr. Geo. Smith. It contained pus cells, singly and in groups, but they were not numerous. A diplococcus was also present in a fresh specimen. The relation of these cases, embracing, as I think they do, the sum total of my experience with pyelo-nephritis of pregnancy, may serve as of some assistance in studying the disease. The condition is in no way connected with the nephritis or albuminuria that accompanies eclampsia. There is a factor common to each condition, namely, the almost total disappearance of the pathological changes in the interval between the pregnancies. In the case of eclampsia, it is the albumen that disappears or greatly diminishes; in pyelo-nephritis it is the pus that disappears or greatly diminishes. In albuminuria of pregnancy we frequently have convulsions; in pyelo-nephritis we frequently have severe rigors; while rigors are not met with in albuminuria and convulsions are not met with in cases of pyelo-nephritis. The two

diseases must, therefore, be looked upon as distinct and separate. But again they meet on another common ground. Each is specially connected with pregnancy, and the sufferers are in apparent good health when not pregnant. The cause of the onset of acute symptoms in either case is the presence of pregnancy. Pyelo-nephritis assumes serious proportions in the fourth and fifth month, while albuminuria assumes serious proportions as a rule in the latter months. In either case the disease may present serious symptoms after delivery. If pressure be the cause of the conditions, it is less difficult to explain cases of albuminuria than cases of pyelo-nephritis, because the former comes on when the pressure is at its greatest, namely, in the latter months of pregnancy. I confess that it is difficult for me to understand why the slight pressure of a three, four, or five months' pregnant uterus upon one or both the ureters should be capable of producing such a serious disturbance in one or both kidneys. Again, it is difficult upon such an assumption to explain the occasional amelioration of the symptoms even with the increasing pressure of advancing pregnancy. And it is more difficult to explain the recurrence of the serious symptoms after all pressure has been removed by the delivery of the child. Perhaps some venous congestion of one or both kidneys may be produced analogous to the venous engorgement noticed even in the very first months of pregnancy.

The symptoms are characteristic. Generally during pregnancy a feeling of malaise, weakness, and ill-health. Then comes on the severe pain of pyelo-nephritis similar to that of the disease when produced by an inflammation ascending the ureter from an inflamed bladder. This pain may be aching or stabbing in character, and is fairly well localized. The kidney on that side becomes excessively tender to the touch. Rigors set in, and the pus is found in the urine. This ill-health may continue until labor sets in or until the uterus is emptied after the induction of premature delivery or miscarriage. This would appear to be the rule, although from my experience there appears to be some amelioration of the symptoms, with a recrudescence of the disease at a later date.

The treatment to be adopted should be that of pyelo-nephritis, whatever that may be. If the disease is, as we know it is, due to the presence of pregnancy, and if the disease is a serious one, as we know it is, surely the most rational method of treatment is to terminate the gestation. This should only be done under the protection of a consultation with one or more confrères, and should not be deferred until it becomes dangerous to the mother.



My experience does not accord with that of some other observers. It has been stated that pressure of the gravid uterus and the pressure of tumors will produce the condition. I have not found pyelo-nephritis, nor yet the further advanced condition of pyo-nephrosis as a complication of myomatous or ovarian tumors, or even of uterine cancer, with all the pressure it produces. The condition most frequently met with here is hydro-nephrosis, and not pyonephrosis, nor yet pyelo-nephritis. In my cases there has not been any tumor of the kidney present upon bimanual palpation of the loin. The cases have not all been permanently damaged in the interval between the pregnancies in so far as pathological changes could be made out by a urinary analysis. Pain has been a constant accompaniment of the condition, and the symptoms set in early, namely, about the fourth, fifth, and sixth months of gestation, and not in the later months.

In this country some years ago, Dr. Meek, of London, drew attention to the condition. Those who are interested in the literature of the subject will find a long list of references in a paper by Tremont Smith, in the *New York Medical Journal*, December 8, 1906.

#### DISCUSSION.

DR. WM. F. METCALF.—The etiology of the various forms of toxemia occurring in pregnancy is not well understood. Why one patient presents symptoms of nephritis without pus in the urine, with eclampsia, and in another the urine is loaded with pus and even pus casts, with no symptoms of eclampsia, while others have repeated rigors with high temperature but no increase of polynuclear leucocytes and no evident impairment of kidney function, is a question yet to be solved, and the medical profession is indebted to Dr. Ross for the report of so many cases from his personal experience of an affection which, though not common, is doubtless frequently overlooked.

I have one case at present under observation. In my records of the last three years, I find only one other case reported, of which the following in brief is the history:

Mrs. D. S., aged thirty-four. Had missed four menstrual periods. For ten days she had severe chills, with fever reaching 104 deg. Leucocytes, 26,200, of which polymorphonuclears made up 98 per cent.; erythrocytes, 2,400,000; hemoglobin, 50 per cent. Vaginal examination excluded salpingitis. Pain in the right renal region was severe. Tumor could be palpated. Urine examination: Very cloudy, with heavy white deposit;

spec. grav., 1010; albumin, more than would be accounted for by the pus present; microscopically, masses of pus-cells and many small round epithelial cells. Specimen taken by catheter gave pure culture of colon bacillus. The patient's opsonic index to the colon bacillus was 1.4. The temperature was typically septic, showing striking remissions.

The case was so clearly one of pyonephrosis, and the patient was in such bad condition, that I did not think it advisable to catheterize the ureter. Cystoscopy and catheterism of the ureter are essential to a positive diagnosis in some cases, but are difficult in the later months.

Here was a woman, anemic and poorly nourished, in a condition most favorable for sepsis. Little pressure is necessary to obstruct the ureter; the pressure of the urine, thus dammed back upon the renal structures, would disturb the vitality of their cells, while the stagnated urine is readily infected by the colon bacillus. In 19 out of 21 cases reported by Rovsing, the colon bacillus was found in pure culture.

I advised termination of the pregnancy because of the bad general condition, and ether was administered on February 4th, a dead macerated fetus being removed. The blood-examination, twenty-four hours later, gave 9,800 leucocytes, of which 92 per cent. were polymorphonuclears; forty-eight hours later there were 4,800 leucocytes, with 82 per cent. The following note appears ten days later: "Many specimens of urine have been examined and there has been a steady improvement; to-day's sample still shows many pus-cells, some albumin, no casts, sp. gr., 1011." On March 2nd, the report is that the deposit, fine and white, is lessening in quantity. On May 9th, "a few pus-cells, an occasional red blood corpuscle, and a few small round epithelial cells remain." The patient has remained in good health since.

The right kidney is the one usually involved. Swift reported 41 cases in which the right kidney only was affected in 37. This fact points to pressure as a factor, since the left ureter is somewhat protected by the sigmoid flexure, and the diagonal attachment of the mesentery tends to allow the small intestine to fall to the left. I do not agree with Dr. Ross's statement that the pressure on the ureters is greater in the later months of pregnancy. I believe it to be greatest just before the uterus rises above the pelvic brim; and it is true that a vast majority of cases are first observed in the fifth month.

In all the cases reported by Swift, in which bacteriological examination was made, the colon bacillus in pure culture was

found; it is therefore likely that the condition of the alimentary canal is an important etiological factor. This would suggest that digestive disturbances and constipation in the pregnant woman should receive especial attention.

According to the reports of cases found in the literature, it is not always necessary to empty the uterus. Twenty-eight of these forty-one cases went to term. Spontaneous premature labor occurred four times, induced premature labor only once, yet eventually in twenty-nine of these cases pus entirely disappeared from the urine. When the infection is bilateral, we may be left no choice but to empty the uterus; but Leguen (*Rev. de Gyn.*, 1904) urges that we should carefully distinguish these cases from those that are unilateral. He performed nephrostomy in eight cases where the condition was unilateral, and says that the operation does not compromise the pregnancy. He further says that, in urgent cases, *before* the child is viable, the operation is incontestably indicated; however, when the child is viable he would prefer premature delivery. Milligan reported (*Ob. Rev. de Gynec.*, 1906) a case of recovery after nephrostomy. Fournier, reporting two cases, states that in one nephrostomy was refused and at the seventh month the patient was delivered of a dead child, while in the other, a case of a severe type, nephrostomy was performed and a living child born at term."

Treatment, aside from operative measures, will, of course, be aimed toward overcoming the infection by the same means used in any form of pyelo-nephritis. The urine should be made a less favorable culture medium by the administration of such substances as urotropin and helmitol, and insisting upon the ingestion of large quantities of water. In the case under observation this method alone has been employed, since operation was refused. The patient has been in bed about two months. She is improving, but there is still pus in the urine.

In brief, we are dealing in the pyelo-nephritis of pregnancy with a condition from which the mother may recover with little of treatment except hygienic measures in a large percentage of cases; but, in all except the most advanced intoxications, our greatest concern is for the life of the child. For this reason we may properly consider Leguen's operation as a valuable suggestion in selected cases.

Dr. Ross is to be congratulated upon his splendid results in the cases reported.



## PULMONARY GANGRENE AND ABSCESS.\*

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By G. E. ARMSTRONG, M.D., MONTREAL.

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Pulmonary gangrene and abscess, although recognized by Hippocrates, and considered by various writers from that time up to the present, has become of practical interest to the surgeon chiefly since the era of Listerism. Indeed, it is only within the last few years that the surgery of the lungs, including pulmonary gangrene and abscess, has received serious attention, and been placed upon a sound, scientific basis. The various details connected with the diagnosis, operative treatment and prognosis of these conditions have been advanced very largely by the labors of Quincke, Tuffier, Gluck, Karewski, Garrè and Körte.

The present paper is based upon 14 cases of pulmonary abscess and gangrene.

The ages were from 20 to 53. There were 10 males and 4 females.

The right side was diseased in 6 and the left side in 8 cases. The upper lobe was involved in 3 cases; the middle in 1, and the lower lobe in 11.

Three of these patients were epileptics and 3 were alcoholics. In six cases the disease seemed clearly to be secondary to pneumonia, and probably in all of the six it was an aspiration pneumonia.

In two the pneumonia immediately followed the administration of anesthesia for the extraction of teeth, alveolar abscess being present in both instances. In one it began by sudden, severe pain in the right side two days after confinement. The following day the patient spat up a mouthful of blood-stained material. A pneumonia then developed which would seem to be embolic in origin.

In one instance the abscess followed trauma. An Italian fell 40 feet, striking on his back. A traumatic pneumonia developed, followed by abscess.

In no instance was a foreign body found or suspected. Foreign bodies in the bronchi as a cause of gangrene are very rare. Weis, in a collection of 1,000 cases of foreign bodies in the air passages does not mention gangrene as a sequel. Hoffman, in 252 cases, reported in Nothnagel's System, men-

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\* Read at the meeting of Ontario Medical Association.

tions it only twice, while Murphy, in his article on "Surgery of the Lung," in a collection of 59 cases of abscess, does not give foreign bodies as an etiological factor. Clarke and Marine, after a careful search of the literature, found but 31 cases in which gangrene followed the inspiration of a foreign body. In these 31 cases, the foreign body was a tooth twice, a pin once, a piece of wood once, a button twice, a head of grain or grass seven times, a bit of evergreen twice, a fruit-stone twice, a bone ten times; not mentioned, 4 times. The gangrenous process in these cases lasted from three days to four years, most frequently from two to four weeks. The right lung was involved in 14 cases, the left in 7 cases. Death occurred in 21 cases, recovery after thoracotomy in 2, and spontaneous recovery in 4 cases. The foreign body was coughed up in 5, four of which subsequently died, and one made a rapid recovery.

The diagnosis and location of pulmonary abscess is sometimes extremely difficult, and differentiation between abscess and gangrene is, in many instances, quite impossible. Lenhartz and Körte think the differentiation artificial and uncertain. In both lesions the primary condition is infiltration and smelting together of the tissues, and whether these tissues break down and form large sequestra, or break down into small particles, often as elastic tissue, is only a question of degree. In fact it is difficult and sometimes impossible to tell whether there is a sequestrum or not. The differentiation by examination of the sputum may lead to erroneous conclusions, for although a pure purulent expectoration would stand for abscess, and a fetid ichorous expectoration for gangrene, yet a sequestrum may be present with a purely purulent expectoration. In one of Körte's cases ten days after the opening of the abscess cavity in the lung a sequestrum the size of the end of the thumb was removed. In fact, a condition of abscess and gangrene may both obtain in the same cavity. The prognosis would seem to be better in cases of pure odorless pus.

Foul-smelling purulent sputum containing lung tissue or elastic tissue indicates the presence of pulmonary abscess, or gangrene or both. Traces of blood are frequent and hemorrhages are not uncommon. If a putrid sputum follows acute lung disease, three things are possible: abscess or gangrene, bronchiectic cavities, or a bursting of pus into the lung from the pleura, subphrenic region, or the mediastinum. In the differentiation of these three conditions, a careful study must be made of the history of the cases, as well as a careful physical examination. A thin layer of normal lung tissue over the

cavity will completely mask the condition. Fluoroscopic and X-ray examinations are most valuable aids in these cases, and will often show the location of the cavity when physical signs and other methods of examination fail. They may also show how deep or how far removed from the surface of the lung is the abscess. For instance, the physical signs may indicate that the abscess is at a certain level, but a fluoroscopic examination may show clearly that the cavity extends downwards and that its lower end is farther removed from the surface of the lung than the upper end. This knowledge may prove most valuable to the surgeon, showing him where to place his incision, to secure the best drainage of the cavity subsequently.

The diagnosis of bronchiectatic lesions by the fluoroscope is much more uncertain. As remarked by Pfeiffer (*Zur Diagnose der Bronchiektasen im Röntgenbilde. Beiträge Zur. Klin. Chir. Band 50, 1906, pp. 279*), the similarity of the symptoms of bronchiectasis when accompanied by fetid bronchitis to those of lung gangrene and abscess is very close and the difficulty in differentiating between the two is extremely great. In bronchiectasis the condition, of course, is generally more wide-spread and diffused over one or more lobes in one or both lungs.

The use of the exploring needle as a diagnostic measure is inadvisable, because of the danger that the two layers of the pleura are not adherent. The pleural cavity may then become infected and a septic empyema develop. There is also the danger from puncturing vessels and hemorrhage. I have known hemorrhage to be quite smart after the use of the exploring needle, although never fatal. Even if the pleural layers are adherent infection may pass into the over-lying tissues of the chest wall and give rise to a phlegmonous inflammation.

The interesting relationship of bronchiectasis to lung abscess is, however, not alone in the question of differential diagnosis. Bronchiectatic conditions have been known to develop in the neighborhood of a healed lung abscess as a result of shrinking of the scar tissues and dilatation of the adjacent bronchi. Such cases have been reported by Garrè i.e. Helferich-Lichtenauer, *Deutsche Zeitschrift f. Chir. Bd. 50, S. 389*. Körte also reports a similar case upon which he had operated for acute abscess of the right lung. A month after the cavity was healed, the patient returned suffering from a recurrence of putrid expectoration. Seven months and a half after the first operation an incision was made through the scar and a system of dilated bronchi was found. He reports further three other cases of acute gangrene of the lung, where, in the region of



the cavities, at autopsy, was found beginning dilatation of the bronchi where no healing process was apparent. Körte admits that there may have been in these cases a pre-existing bronchial dilatation which favored the development of the gangrenous process.

Tuberculous cavities are not suitable for operation.

Patients sometimes seem to develop gangrene without a pre-existing pneumonia or lung disease. Emboli may arise from a puerperal infection, retro-cecal and appendical abscess. Embolic abscesses are frequently multiple and in that case are not adapted to surgical treatment. In one, inspiration of water while bathing was a cause. Typhoid fever, measles, facial erysipelas and bronchitis may be etiological factors; in one, tropical dysentery and liver abscess. In acute cases the abscesses are generally solitary.

When once the diagnosis is made and the cavity located it is unwise to delay operation because of the danger of hemorrhage, extension of the disease in the lung, bursting into the pleura, and the occurrence of metastasis and sepsis.

Reasons which justify delay in operation are persistence of the acute pneumonic process and the desirability of having firm adhesions of the two pleural surfaces. These, however, should not be allowed to weigh against early evacuation of the pus when there are well-marked indications for the same.

In the early stages the abscess walls surrounding the tissue are softer and more yielding than they are later on.

In chronic abscess the conditions of healing are much less favorable, as the walls are hard and unyielding. To bring a chronic abscess to healing generally requires extensive resection of ribs and often of the thickened visceral pleura as well.

While it cannot be denied that certain cases recover after rupture of the abscess into the bronchus, yet experience has shown that this is an uncertain result, and that the mortality in unoperated is very much larger than in operated cases. In diffuse bronchiectasis the conditions are quite different, the disease is not so localized—operation is not so satisfactory, and the prognosis is not so good. The drainage of localized bronchial dilatations is sometimes successful.

Resection of a whole lobe has sometimes been found necessary, and is sometimes followed by success. The operation, as a rule, is undertaken for the relief of abscess and gangrene.

Operations for the relief of large hemorrhages are not easy. There is the difficulty of coming directly upon the bleeding point and the danger of the patient bleeding severely into the

bronchial tubes while the operation is going on. If one is sure that there is only one abscess from which the bleeding comes and if the physical signs and fluoroscopic examination show that the abscess is superficial and the patient's life is jeopardized by recurrence of large hemorrhages, one might be justified in such instances in opening the cavity with a view to controlling the hemorrhage by ligature, or by packing. If the cavities are multiple, or if the condition is one of bronchiectasis, operation is certainly contraindicated. Nordman, in the *Gaz. des Hopitaux*, No. 87, 1906, draws attention to the possibility of hemorrhage occurring in cases of pulmonary gangrene, and to the small mention of this complication in the books. Lannec and Trousseau do not mention it at all. Grisolle, Eichhorst and Nothnagel simply refer to it. Hardy and Behier, on the contrary, clearly indicate its importance and gravity. It must be divided into two forms; the small capillary hemorrhages which are sufficiently frequent, and the grave hemorrhages, due to rupture of large vessels, and which are generally fatal.

In some instances there may be some preparation made before operation. Only too often, however, patients are brought to the hospital in a desperate condition, and require immediate relief. In other cases, for some unaccountable reason, the physicians transfer these patients to the surgical side only when they are *in extremis*. When possible, these patients should be prepared for operation in the usual way, with the added special preparation to get them to cough up as much as possible beforehand. Many of them know what position to assume to accomplish this end. They know that by turning on one side or the other—by lying on the back, or on the face, or by hanging the head low, they can empty out a large quantity of matter, which renders the subsequent operation much safer.

I prefer, when possible, to operate under local anesthesia, but this is difficult in the cases of foreigners, who cannot be spoken to and encouraged in their own language. In such cases I use ether as being probably safer than chloroform, or any mixture containing chloroform.

After portions of one or two ribs are resected over the cavity, the next question is, are the layers of the pleura smelted together and adherent? Tuffier reports 215 cases, in which the pleura was adherent in 190, or 95 per cent. It is not always easy to decide this point. Putting in a needle and expecting it to be moved up and down if the pleura surfaces are not

adherent is an uncertain test, because it is almost impossible to stop the point of the needle just when it pierces the visceral pleura, and if it goes much further the lung tissues move it up and down. I have usually found that if the parietal pleura was thickened adhesions were present. If in doubt, and the patient's condition permits, one may remove one or more bits of rib and suture the two layers together as recommended by Yean, Tuffier and Roux. In suturing the pleural layers, round needles are preferable, and Garrè recommends inserting them during expiration and covering the pleura with the finger during inspiration. I have never known any infection to occur from this operation. If the condition is urgent, incision may be immediately made and the lung entered, but it is safer to wait for a couple of days for adhesion to take place. In other cases when in doubt I have applied the cautery, and in others simply packed the cavity tightly with iodoform gauze with equally satisfactory results. The first, however, is the procedure of choice. In one instance, when in doubt, I made a small puncture with the end of a knife—the entrance of a puff of air discovered that no adhesions were present. I packed the cavity with iodoform gauze, and three days later found adhesions sufficient to allow me to go in without any trouble.

If the pleura is accidentally opened and the lung recedes, W. Müller has found it possible to catch the receding lung with a pair of forceps and bring it back into the wound and suture the two pleural layers together. Incision through the lung tissue into the abscess cavity may be made in several ways. In some cases where the tissue is hard and dense, particularly if the fluoroscopic examination has shown the abscess wall to be near the periphery of the lung, one may enter simply by blunt dissection. In these cases I have found it very satisfactory to first insert a director, and when entrance into the abscess cavity was demonstrated by the flow of pus, to pass a pair of narrow-bladed forceps along the groove, and by separating the blades to secure an opening sufficiently large to permit the introduction of a finger for purposes of exploration. I have found this a valuable detail, as it enables one to determine the size and direction of the cavity and the location of any communication with a bronchial tube. In one of my cases I found the communication with the bronchial tube at the very upper end of a long cavity. This patient did not do particularly well for some weeks after operation. Then finally I made a second opening through the chest wall into the lower end of the cavity, thus securing a dependent drainage, when the cavity closed rapidly,



and the patient has remained well ever since. If there is much lung tissue to pass through in reaching the cavity a thermocautery enables one to enter with comparatively little loss of blood. An incision, however, may be made if good access has been obtained previously, and any bleeding points caught and ligatured.

In three of Körte's cases, sudden death occurred after operation from arrest of breathing with collapse. The first patient, who had had several hemorrhages, was operated upon under local anesthesia, morphia and local infiltration with eucaine; a large gangrenous cavity was opened on the left side behind; the pleural layers were adherent. The patient did not suffer from any great pain and the bleeding was insignificant. The pulse was good and the operation was in every way successful. While the bandages were being applied and the patient in a partially elevated position, the breathing suddenly ceased, the pulse became bad and the patient died at once. The autopsy of Prof. Benda showed no good reason for the sudden death. The second case was being operated upon for the second time three months after the first operation. While the fistula was being enlarged under morphia and eucaine infiltration, a few drops of chloroform having been given towards the end, breathing suddenly stopped, the pulse became bad and the man died. The autopsy of Prof. Benda showed many bronchiectatic cavities in the left lower lobe, but no reason for the sudden death. The third was that of a man 52 years of age. The sixth and seventh ribs on the right side were resected under chloroform anesthesia, the adherent pleural layers were excised and the bronchiectatic cavity opened. After the operation, just as the patient was being put to bed, breathing stopped, the pulse ceased. Artificial means, tracheotomy, inflation of lungs, venesection and saline infusion into the median vein restored breathing temporarily, but three hours later he died. Körte thinks the only explanation of these sudden deaths is through the reflex action of the pneumogastric nerves. He does not seem to think that the method of narcosis contributed in any way.

The after treatment consists in providing free drainage and easy emptying of the cavity. This is generally accomplished by the insertion of a soft rubber tube. At the time of the operation the cavity may be wiped out with gauze swabs, and sometimes a considerable mass of gangrenous tissue and shreds are wiped away in this way without causing hemorrhage. Later, during the period of granulation, healing may be promoted by packing with gauze, and by using tincture of iodine, nitrate of silver or balsam of Peru.

The incision of the tissues in the chest wall must not be allowed to close until the lung cavity is healed. Small hemorrhages are not infrequent before operation, as has already been mentioned, and hemorrhages of considerable quantity sometimes follow the use of the exploring needle. Hemorrhages after operation and after the cavity is opened sometimes occur. In two of my cases the hemorrhages were really severe. In one it was necessary to pack the cavity very tightly with gauze. When the packing was removed in twenty-four hours, bleeding recurred and a similar experience after the next twenty-four hours occurred. In this case good access had been obtained and one could distinctly see into the cavity where the bleeding was going on. It did not come from any spouter that could be seen, and was controlled with packing. After the third twenty-four-hour interval no hemorrhage occurred. In the second case, although not severe, it was necessary to keep the cavity packed forty-eight hours. If access has been good and a vessel is seen spouting there should be no difficulty in applying a ligature.

The wound has ultimately healed without permanent fistula in all of my cases in which there was not at the time of operation an accompanying empyema. Permanent fistula is rare and may be said not to occur in those cases in which the two pleural layers are adherent at the time of operation. If, however, before drainage is established, the abscess or cavity has burst into the pleura before the pleura layers were adherent, then the same rules for healing apply as for empyema. The visceral layer may become so thick as to seriously retard the expansion of the lung and the healing of the cavity. The cavity seems to close generally by granulation and scar tissue, gradually contracting and obliterating the opening. During this process, as has already been mentioned, the bronchial tubes in the neighborhood may become stretched and dilated. Mikuliz has reported one and Körte two instances in which the cavity, instead of being obliterated by contraction of scar tissue, became covered with a layer of epithelium. All three cases occurred in the upper lobe where the anatomical difficulties of bringing about apposition of the walls and the spaces are present. If there has been much contraction during the healing process there will be the usual flattening of the chest and alterations in the spinal curves. In only one instance was I obliged to operate the second time, and that, as has already been mentioned, was where the drainage and the bronchial tube were both from the upper end of the cavity. So far as we have been

able to trace these cases, the recovery has been permanent—no cough or bronchitis being complained of.

No. 3 died suddenly a month after operation from ulceration with erosion of a branch of the pulmonary artery.

No. 6. In this case the accompanying condition and contributory causes of death were acute miliary tuberculosis of the peritoneum, fatty heart, septic splenitis, peri-splenic abscess and acute parenchymatous nephritis.

No. 13 was a case of bilateral bronchiectasis with fetid bronchitis, in which I drained one side. He died from asthenia on the fifth day after operation.

No. 14. Contributory causes of death were broncho-pneumonia; emphysema of lungs; chronic int. nephritis; acute int. nephritis and fatty liver.

Resection of one lobe of the lung has been carried out by Kümmell, Gluck, Krause and Heidenhain. Garré and Lennhartz seem to think it the only rational procedure in certain extreme cases with a limited disease. It is said to be feasible and may be carried out largely by ligature en masse. So far, I have had no experience with this procedure. Good access obtained by the removal of portions of several ribs would seem to be a necessary detail, thus securing control of the field of operation.

In conclusion it may be said that while some lung abscesses and some localized bronchiectatic cavities may, under favorable circumstances, when communicating freely with a large bronchus, empty themselves sufficiently to permit of cure, yet on the whole the results of medical treatment only in lung abscess and gangrene are bad. Much better results are obtained by incision and drainage, so that not more than a few weeks should be spent in medical treatment. Operation in a rarefied atmosphere, from what I saw of the method in Breslau, and from what I have read of it since, seems to promise a good deal, and should enable one to operate on these cases more independently of the union of the two layers of the pleura, and enable one more freely to explore the cavity, to ligature, suture, and to do better work generally.

The mortality in lung abscess and gangrene varies under surgical treatment. In 28 cases following pneumonia operated on by Körte, 20 recovered and 8 died, a mortality of  $28\frac{1}{2}$  per cent. Of 8 cases of putrid empyema associated with gangrene, 1 recovered and 7 died, a mortality of 87 per cent.

Tilton reports a mortality of 50 per cent. in 20 cases. In



the 14 cases reported in this paper, including one of putrid empyema, there were 4 deaths, a mortality of  $28\frac{1}{2}$  per cent.

The case complicated by putrid empyema is making a very satisfactory recovery, but further operation may be necessary to obliterate the pleural cavity, as the lung is tightly bound down and is expanding very slowly.

#### BRIEF REPORTS OF 14 CASES.

*Case 1.* Male, aged 38. Dr. Lafleur. Alcoholic and epileptic. Gangrene. Following a prolonged spree developed a severe pain in the side and began expectorating blood-stained, greenish sputum, measuring 20 to 25 oz. in 24 hours. Cavity  $2\frac{1}{2} \times 2\frac{1}{2}$  inches, with smooth walls opening into a bronchus from the upper corner. The pleural surfaces were adherent. Drainage. Recovered. His habits were such as would point the clinical history to this being originally an aspiration pneumonia. The absence of elastic tissue and the smooth walls of the cavity suggest bronchiectasis, but the gangrenous odor of the sputum, the fever and the pleurisy point to its being gangrene.

*Case 2.* Male, aged 33. Dr. Molson. Alcoholic. Illness began with chills and rigors. Two months after had chills with profuse perspiration and fetid expectoration. Signs of consolidation in the right lung, but difficult to localize. The sputum had a gangrenous, offensive odor and contained elastic tissue. The patient was transferred to the surgical service and rib resected. Drainage. Recovery.

*Case 3.* Male, aged 48. Dr. Finley. No alcohol or epilepsy. Illness began with chill, followed by daily chills and night sweats. Signs of cavity at the base of the upper lobe of the left lung. Fluoroscopic examination showed a shadow in this region and foul pus was drawn by the exploring needle. Sputum frothy, muco-purulent, and contained elastic tissue. Patient was transferred to the surgical service, where, previous to operation, he expectorated 40 ounces of fetid sputum. At the operation a large gangrenous cavity was explored and packed with gauze. The patient improved, but died suddenly a month later from ulceration of the posterior left apex with erosion of a branch of the pulmonary artery.

*Case 4.* Male, aged 45. Dr. Ridley MacKenzie. Alveolar abscess causing trismus. Dr. MacKenzie administered ether to relax the jaw, and the removal of the tooth liberated a lot of foul smelling pus, and a sub-maxillary abscess formed later which was opened. Three weeks afterwards dry friction rub

of the right side which improved after strapping. A week later a dull area developed with signs of consolidation and gangrenous expectoration. An exploratory aspiration was performed below the angle of the scapula and gangrenous foul smelling pus was found. The expectoration was profuse and gangrenous, but no elastic tissue was found. He was transferred to the surgical service and a piece of the ninth rib excised, and a fetid-smelling abscess was opened lying between the diaphragm and the lung, almost fecal in character. Drainage. Recovery. The man is now in perfect health.

*Case 5.* Female, 26. Dr. Ridley MacKenzie. Illness commenced with alveolar abscess in the upper jaw. The tooth was removed under an anesthetic, the anesthetic being prolonged preparing the tooth for bridge-work. A week later a pleuritic friction rub developed in the right axillary region, followed by signs of consolidation with blowing breathing, accompanied by muco-purulent fetid expectoration, but no elastic tissue. An effusion developed, and gangrenous pus was aspirated. Resection of the ninth rib liberated a large quantity of greenish gangrenous pus. The pleural layers were adherent, the lung cavity presenting irregular sloughing walls. The patient's condition was very bad. She was septic with acute dilatation of the heart. The apex of the heart was in the anterior axillary line and the pulse was not countable. Good drainage was secured, and expectoration ceased and the patient's recovery was perfect. Dr. MacKenzie accordingly regards this condition as one secondary to aspiration-pneumonia, the gangrenous abscess not being in direct communication with a bronchus. It was in the outer aspect of the lung, rupturing into the pleural cavity.

*Case 6.* Aged 20. Died April 1st, 1907. Primary tuberculosis of the ovary, resulting in acute miliary tuberculosis of the peritoneum. Gangrene of the lung. Right inguinal fistula. Acute fibrinous pleuritis. Fatty heart. Septic splenitis. Perisplenic abscess and acute parenchymatous nephritis. The patient was a very large, fat girl, weighing about 180 pounds.

*Case 7.* S., aged 31. Pulmonary abscess. Chloroform anesthetic. Was discharged well and gained in weight. Incision  $2\frac{1}{2}$  inches long of the eighth rib in scapula line. Rib resected. pleural layers adherent. Abscess approached by blunt dissection and one ounce of pus evacuated. Tube put in. On Nov. 14th, the abscess was re-entered and 150 c.c. of bloody fluid withdrawn.

On Oct. 14th, the patient was brought to the hospital, having

fallen about 40 feet and was bruised and sore, especially over the back and abdomen. There was a hematoma of the left side of the neck. This was followed by an abortive attack of pneumonia, mainly confined to the base of the left lung. Pleurisy followed this with effusion. Pleural surface adherent. No tbc. were found. Elastic tissue was present. Recovered.

*Case 8.* Age, 29. Pulmonary abscess. Lobar pneumonia. Marked scoliosis. Diminished expansion. Resection of eighth rib—left side in scapular line. Pleural surface adherent. Pulmonary abscess opened by blunt dissection. About one ounce of greenish pus evacuated. Illness began with pain in the left side and cough.

On admission to the hospital there was a friction rub over the left anterior axillary line. Cough with muco-purulent bloody sputum.

Developed from lobar pneumonia left side and septicemia. Culture obtained. *Staphylococcus pyogenes albus*. *Streptococcus pyogenes*. No tbc.

*Case 9.* Mrs. J. M. Age, 39. Pulmonary abscess. Complication. Hemorrhage. Recovery. A small opening still persists at the time of discharge, but the patient feels very well.

Part of the eighth rib resected in scapular line. Pleural layers adherent. Pulmonary abscess opened by blunt dissection, 6 oz. dirty pus evacuated. Tube inserted. Examination through this by reflected light showed a pulmonary abscess immediately in front of incision.

The patient was confined Dec. 1st. On Dec. 3rd, had a chill and a second one on the following day, accompanied by very sudden and severe pain in her right side far down towards the base of the chest and thorax. Had no cough or expectoration with pain. Severe headache after the chill and very feverish. On the 4th of December she spat up a mouthful of blood-stained material. Was brought to the hospital on the same day. Would seem to be embolic in origin. The pulmonary abscess was opened on Dec. 13th. On the 31st and 23rd of Dec. there were profuse hemorrhages from the pulmonary cavity, requiring packing twice a day with gauze. Calcium lactate and stimulants were administered.

*Case 10.* Mrs. K. Age, 26. Operation 15th November. Abscess of right lung. Abscess of three months' duration. Fetid expectoration and pneumococcus—no tbc.—a great deal of elastic tissue. Abscess located in the right base. The aspirating needle was used to locate it exactly. Several punctures were made before it was found just under the spine of the



scapula. Very little pus was aspirated. Incision three inches long over the eighth rib and two inches resected. Pleural layers adherent. Pleural surfaces seemed to be moving freely over each other, and an actual cauter was applied with a view of promoting a pleuritis. The wound was then plugged with iodoform and gauze.

On Nov. 13th, had quite a large hemorrhage. There was considerable difficulty in locating abscess, but finally a tube was inserted.

Present illness began on the 2nd of March, shortly after an operation for the removal of the left eye. On March 5th, pain developed in the right side of the chest, followed by cough and expectoration.

About May 1st, sputum was blood-stained, and May 12th she spat up a wineglassful of bright-red blood, and was admitted to the hospital, where she remained till July 25th. The diagnosis at this time was fetid bronchitis. Came back Sept. 27th, saying that she had another hemorrhage the day before, spitting up a half-cup of bright-red blood after a fit of coughing. Examination proved negative. Discharged improved 5th October, 1907.

On Oct. 23rd, she began to notice blood in the sputum. In the evening she coughed up two or three spoonsful of bright-red blood.

*Case 11.* W. P. Age, 27. Was very healthy until two years ago, when he began to have epileptic attacks which persisted ever since. Has used alcohol in excess for past seven years in all forms. No venereal history.

On Dec. 23rd, 1907, sudden, sharp, catchy pain in left side, so severe that it kept him awake at night. Next morning pain was easier and he worked all day. Dec. 26th, when entering his house, tripped and fell to the ground, striking his head. Walked four or five steps and fell in an epileptic convulsion—became unconscious and rigid all over and remained so for three minutes. During the attack he frothed at the mouth, bit his tongue and passed urine. Had three more similar convulsions the same night.

On Jan. 14th, pain in the left side became more severe and required morphia to relieve it. This pain had been present a little more or less since it first started. Jan. 15th, breathing rapid, and pain present, but not very severe. Jan. 20th, coughed and expectorated a large quantity of very effusive, thick, greenish matter. Later the sputum became watery. In bed

since Jan. 14th. Well-marked pyo-pneumothorax. No tubercle bacilli.

Operation: Two inches of the eighth rib resected in the line of the angle of the scapula. About 8 oz. of foul-smelling sero-purulent material was evacuated. I think this was the most horrible fetid stuff that I have ever had to do with in my hospital experience, and continued so for ten days or a fortnight. Recovery.

Case 12. Male, aged 28. Inmate of Verdun. Epileptic. Large pulmonary abscess—left side. Excised portion of eighth rib in line of angle of scapula. Fetid ichorous pus and air escaped from cavity. On introducing the finger, cavity was found to be the size of a small orange and to be especially connected with the upper surface of the lower lobe. The two lobes were quite separate, the abscess evidently lying between the two, but apparently taking origin from the lower. The cavity was wiped out and drainage established. Recovery.

Case 13. E. J. Aged 45. Bronchiectasis. Autopsy diagnosis.

While working in bush got wet, from which an attack of pleurisy followed some three years ago, and was in R. V. H., Montreal, eight months. Previous to entering the hospital would spit up pus and blood as much as a tumblerful. Expectoration greenish, not fetid. No pain. Matter rises up in throat whenever he stoops down.

Operation: Left lung. Died fifth day after operation.

Case 14. Dr. Finley. M. W. Age, 38. Abscess of lung.

Operation: Resection of ribs and suturing of pleura. Temperate in habits. Illness began about a month previous to operation after a bad wetting, which was followed by a severe cold. Had no chills nor pain, except when coughing. During severe fits of coughing expectorated about a pint of almost pure blood in a night. Sputum rancid, tenacious, rusty-colored and foul-smelling. Neither tubercle bacilli nor elastic tissue. Behind right lung area of dulness beginning at fourth dorsal spine above and extending downward for about 4 in. Died day after operation.

Autopsy: Abscess R. Lung (upper pt. lower lobe); broncho-pneumonia (all stages, left lung L. lobe); Emphys. and Bld. of lungs; old adhes-pleur's; ac. muco-purulent bronch's; thoracotomy; Chr. int. Nephr's and acute interstit. Nephr's; Cysts of pelvic (kid.) wall and of trigone of bladder.

Fatty liver: Suppuration of gland at base of appendix and of bronch. glands.

## THE ITCH.\*

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BY DOUGLASS W. MONTGOMERY, M.D., SAN FRANCISCO.

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The two chief symptoms of the itch are: Itchiness, and the burrows of the itch mite. The accessory or secondary symptoms are: Papules that are usually excoriated; vesicles filled with a transparent crystalline fluid, and which arise directly from the sound skin and have no inflammatory base, and are situated principally on the fingers and hands; pustules, with large ecthymatous crusts; and scratch marks.

The itch may be complicated by urticaria, impetigo, ecthyma, vesicular eruptions, pemphigoid bullæ, eczema, lichenoid eruptions, furuncles, abscesses, lymphangites and adenites.

The itchiness is usually well marked, and frequently sets in at night on retiring. The patient tosses on a distressful bed until the early morning, when he gets a little sleep, and so on night after night till worn out and hollow-eyed with fatigue. With people particularly sensitive to the mite the itchiness continues during the day also, and many a complaint is made of dignity deeply wounded by an uncontrollable desire to scratch.

The burrow or run is made by the female in the lower layers of the cornified epithelium of the skin. It can be seen as a rough, curved furrow, sometimes running over a papule, sometimes having a papule or pustule at one end. Frequently the burrow is black from dirt that settles in its rough surface. It is said that the feces of the animal deposited along the "run" also blacken it, but it is doubtful if they are ever present in quantity great enough to have this effect. These runs are usually best seen on the anterior surface of the wrists, or on the neighboring volar surface of the palms, or between the fingers.

In those in whom the disease is very light and causes only a few vesicles between the fingers, filled with a clear fluid and arising from a non-inflammatory base, the burrows may be easily overlooked and the affection may be considered a transient irritation. Where pustules are found on the hands and wrists of an adult, a painstaking search should always be undertaken to find the burrows and the itch mite, as the erup-

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\* Abstract of a paper read before the Alumni Association of the Medical Department of the University of California, April 10, 1908.



tion is so likely to turn out to be that of the itch. In fact, in every eczematous or itchy disease of the hands and wrists, it is well to think of the possibility of the itch mite as being its cause.

As a patient stands before you even the locations of the eruption are characteristic; on the hands, at the wrists, at the axillary folds, on the belly, on the penis, with the face clear of trouble. Then, as the patient wheels round, the back down as far as the loins is seen clear of eruption, with a papular outbreak on the nates and in the folds just below them, and a rash in each popliteal space. There are also over the elbow tips dirty, heaped-up, irregular crusts, quite different from the well circumscribed buttons of psoriasis. As before mentioned, the nipples in women are frequently affected. If a papular impetiginous eczema occupies the above-mentioned sites, even if burrows are not found, the diagnosis of scabies may be made.

In regard to differential diagnosis, a dermatitis among cement-workers, caused by the very active chemicals in cement, must be considered. During the past few years cement has grown more and more in favor as a building material, and physicians must expect to encounter an increasing number afflicted with this dermatitis. It is particularly apt to give rise to a crusted eruption between the fingers, that strikingly resembles that of scabies.<sup>1</sup>

To my mind, the treatment of scabies as given in the textbooks is too rigorous. The parasitocides themselves are irritating, and when applied to the raw lesions on the skin produce a variety of discomforts. When, in addition, these parasitocides are combined with such ingredients as soft soap and carbonate of potash, with a trifle of chalk added to the ointment to make it gritty, the patient feels that the adjective "unctuous" is not applicable to the composition in question.

The principal parasitocides used for killing the sarcoptes are sulphur, betanaphthol, balsam Peru, creolin and styrax. Epicarin and petroleum may also be used. A simple sulphur ointment, if intelligently applied, and for a long enough time, kills the parasite, and usually with little inconvenience to the patient. As remarked by Malcolm Morris, even the simple sulphur ointment of the British Pharmacopœia ( $\frac{1}{4}$ ) is too strong, and a half a dram or a dram of sulphur to an ounce of lard is quite strong enough. The patient should first take a hot bath, with plenty of soap, and then be directed to rub the ointment particularly into the favorite locations of the parasite for nine successive nights. During the whole course it is

better to wear a full suit of woollen underwear, so that the ointment by getting into the underwear may be returned to the skin and rubbed in with every movement of the body. The patient should therefore be directed to wear the same undershirt and drawers during the whole nine days and nights of treatment, only taking off the garments to rub in the ointment. In such a treatment it is particularly necessary to rub the ointment well into the hands and wrists, as these do not receive the benefit of the constant application of the salve by the clothing. In women it must also be remembered that the drawers, being open at the back, do not come well into contact with the gluteal folds, which should therefore receive the same special attention as the hands. Although the ointment is only rubbed into the points of election previously spoken of, yet these points are so widely distributed that the underwear spreads it over the entire clothed body and limbs. Furthermore, it makes a better impression on the patient, and one is more apt to get one's orders carried out if these certain points are explicitly designated for attention.

I have seen repeated failures to cure because of the treatment being confined to one or two localities where the eruption was most marked. In all cases, therefore, a general treatment for the itch must be instituted, and at the same time any severe local inflammations may be controlled, for example, by starch poultices, to which is added about five per cent. of boracic acid powder. At times we have to treat a patient for scabies who is suffering from a broken limb, and find the beasties quite at home under the restraining splint.

Balsam Peru is an excellent remedy for the itch, and it is often used in the same ointment with sulphur, as, for example:

R.

Sulphuris precipitati	
Balsami Peruviani	a a dram. iii
Lanolini	
Vaselini	a a oz. iss

M.

In cases where, as in infants or in severe local dermatitis, great care must be taken not to injure the skin, it is often desirable to use Balsam Peru alone, as in the following:

R.

Balsami Peruviani	1 to 2 oz.
Lanolini	
Vaselini	a a 1 oz.

M.

Julien highly recommends the method which he saw used in Italian clinics, of painting patients with balsam of Peru without any preliminary baths or other preparation. It is best applied at night, and followed in the morning or later by a bath. It usually causes no irritation whatever, and is effective. It should not be forgotten, however, that in rare instances balsam of Peru produces violent dermatitis.<sup>2</sup>

Matzenauer gives the following directions in regard to the application of balsam Peru or styrax: A hot bath with plenty of soap should first be ordered, and after the skin is perfectly dry the balsam Peru is to be well rubbed in with a piece of flannel. As it easily spreads, a very small amount, 8 or 10 grams, according to Mosler and Piper, is enough for each rubbing. The application should be made twice a day for two succeeding days. The patient should neither bathe or change his underclothing for four or five more days, after which a bath is taken. The undergarments may be thrown away, as they are rendered unwashable by the balsam.

In the same manner styrax may be applied, prepared according to the following formula:

R.

Styracis liquid.	25.00
Spts. vini. rect.	10.00
Ol. oliv.	65.00

M.

Or the styrax may be combined with balsam Peru.

R.

Styracis liquid.	80.00
Balsam. Peru.	20.00
Spts. vini. rect.	
Glycerini	a a 16.00

M.

Although sulphur, balsam Peru, and styrax are excellent remedies for scabies, yet there are other fine agents, such as creolin and betanaphthol. An ointment composed of:

R.

Betanaphthol	10.00
Lanolini	
Vaselini	a a 75.00

M.



may be used in the same way as a sulphur ointment. Betanaphthol has been known, by absorption, to irritate the kidneys, so that one would hesitate to prescribe it when the patient is suffering from Bright's disease, and in any case due care should be taken in using the remedy.

Through Dr. Werther, of Dresden, I first became acquainted with the use of creolin, who uses it in the following combination:

R.

Creolin	10.00
Saponis viridis	30.00
Adipis benzoati	ad 100.00

M.

S.—Rub in morning and evening.

I have used it, leaving out the soft soap, and have found it a most satisfactory remedy.

In my personal experience, as I have previously indicated, I have found the ointments as usually recommended for the itch too severe, and have preferred to treat my patients a longer time and less drastically, both to my contentment and to theirs. Another modification I have found most comforting is to change the parasiticide during the treatment; to use a sulphur, balsam Peru ointment for three days, a betanaphthol ointment for further three days, and a creolin ointment for the remainder of the time. In this way, if a person be delicately sensitive to sulphur and gets a commencing sulphur dermatitis, this will subside under betanaphthol, and before the betanaphthol has time to irritate severely, it, in its turn, is discontinued, and creolin is used.

In many instances a dermatitis caused by sulphur can be controlled by a judicious use of talc powder or of Lassar's paste. A good formula for Lassar's paste is:

R.

Acid. salicyl.	gr.	xx
Amyli.		
Zinci. ox.	a a	oz. ss
Glycerini		oz. i

M.

S.—Apply twice a day.

At times a pruritus, or an urticaria, or an eczema, may persist long after the scabies is cured. These obstinately annoying eruptions may frequently be controlled by Boeck's paste,

to which is added ten per cent. of liquid carbonis detergens. The formula reads as follows:

R.

Liquoris carbonis detergentis	30.00
Amyli.	
Talc.	c c 40.00
Glycerini	20.00
Gummi Arabici	1.00
Liquoris plumbi subacetatis	4.00
Aquæ	200.00

M.

S.—Use as a lotion two or three times a day.

The patient's underclothing should all be boiled; this is disinfection enough. I have never found it necessary to disinfect the outer garments, with the exception of gloves. As for the gloves, that is an important matter, and orders should be given to search out industriously all the gloves in the house, burn those that are old, and dust sulphur powder into the still useful ones. Gloves, in a disease that shows such a predilection for the hands, should be admirable carriers of infection, although I have never personally found them to be so. Julius Heller thinks it would be wise for the public health authorities to disinfect gratis the dwellings of the poor that are infested with any of the animal parasites, such as pediculi and acari.<sup>3</sup> Several other remedies besides sulphur, betanaphthol, balsam Peru and creolin have been advised for scabies. Epicarin is apt to be quite irritating to the skin. Petroleum is so nasty and may cause such severe irritation of the skin that it is only used in the very poorest practice in poor countries.

Ichthyol has been used in baths, but such a quantity has to be employed as to make treatment unnecessarily expensive; furthermore, the method has no special advantage, except that it does not irritate the skin.<sup>4</sup> I have never used ichthyol as an antiscabitic. Franz Nagelschmidt recommends theophinol, a sulphur derivative, to be used in baths and as a salve.<sup>5</sup> Michel Steiner speaks favorably of tardermasan in the treatment of scabies.<sup>6</sup> Walter Schneider uses anthesol as a substitute for tar to control the itching in scabies.<sup>7</sup>

As I have never employed theophinol, tardermasan or anthesol, I cannot speak either for or against their use.

The principal object of this paper is to ameliorate the condition of those having the itch by modifying the rigors of

treatment. Those dear scabby ones deserve consideration, at our hands, for notwithstanding their torments, they are a good-natured lot. Many diseases tend to sourness, and to the nursing of wrath against the world and especially against the physician who endeavors to help them. This is rarely the case with those having the itch. We ought, therefore, to take especial pleasure in lightening their burdens. I often think of the kindly Hippocratic maxim: "We must never do our patients any harm," and in the case of scabies, it might be enlarged to say with Rudyard Kipling, "and not afflict them with any of the unnecessary hells."

## REFERENCES.

(<sup>1</sup>) Le Dermatosé des Cimentiers per Rene Martial. *Revue Pratique des Maladies Cutanees*. Juillet, 1908.

(<sup>2</sup>) Loc. cit.

(<sup>3</sup>) Oesterr Krankenpfleg, Z't'g., 1907, No. 6. Abstract in the *M. f. prakt. Dermat.* Okt., 1907, p. 375.

(<sup>4</sup>) Ch. du Bois. Abstract in *M. f. prakt. Derm.*, 15 Juni, 1907, S. 634.

(<sup>5</sup>) *M. f. prakt. Dermat.*, 1 Feb., 1906, S. 145.

(<sup>6</sup>) Berlin. klin. Wochensch, 1906, No. 11. Abstract in *M. f. prakt. Derm.*, 15 Dez., 1906, S. 715.

(<sup>7</sup>) Deut. Arzte. Z't'g, 1905, No. 6. Abst. in *M. f. prakt. Dermat.*, Bd. 42, S. 592.



## Selected Articles.

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### OBSTETRICS DURING THE LAST DECADE.

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BY ADAM H. WRIGHT, B.A., M.D., M.R.C.S. (ENG.)

Professor of Obstetrics, University of Toronto.

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The fact that our opinions and methods of to-day differ from those of ten years ago does not necessarily mean that we have made progress. It is possible, for instance, that those surgeons who are attaching a new meaning to the word asepsis, are doing positive harm, especially to the student body. We as obstetricians have learned much from Lister. Let us hope that we will never unlearn any of it. We shall do well to aim at improving Listerism. Let us never endeavor to subtract anything from it.

#### PUERPERAL SEPTIC INFECTION.

Curettage was largely employed at one time in cases of septic infection, but it has recently gone out of fashion to a great extent. Curettage of an empty septic uterus is always useless, and very dangerous. If debris is retained in the uterus it is advisable to remove it; but the gentlest means possible should be used—the safest curette being the gloved finger tip. It is doubtful if even this should be used after the third day following labor. Drainage in this connection will be considered later.

To those who thought that the days of the sharp metallic curette had gone, it caused a certain amount of surprise to find that Sir Wm. Sinclair, and some of his confrères, in conservative England, are now using this instrument in all cases of puerperal septicemia. In a recent number of the *British Medical Journal*, Gordon, of Manchester, one of Sinclair's followers, said that he treated all such cases in this way with good results. After curetting he "goes over the raw surface thoroughly with swabs of undiluted izal, and then packs the uterine cavity." Notwithstanding our respect for these men, we have to express our decided disapproval of what we had hoped were antiquated methods nowhere now employed in the civilized world.

Apart from these considerations as to local treatment we hope we have made some advances in the last decade with reference

both to diagnosis and treatment of puerperal sepsis. We are commencing to realize that it is not correct to wait until three or four days have elapsed after labor before we make a diagnosis. To say, as some authors do, that in "cases of septic endometritis everything goes smoothly for the first three or four days of the puerperium, when the patient suddenly experiences more or less malaise, possibly has a chill, after which the temperature rises to 103 deg. F. or higher," is grossly incorrect. Things never "go smoothly for three or four days in a case of puerperal infection." Symptoms always appear within twenty-four hours after infection, and include the following: Slight headaches, sleeplessness, slight coating of the tongue, listlessness, and slight abnormalities of the pulse and temperature. If two or more of these symptoms appear we should at once commence treatment. The treatment recommended is elimination by means of calomel and saline cathartics, and afterwards the administration of opium in sufficient doses to relieve pain.

We cannot now speak in detail respecting the unfortunate and intemperate discussions which took place in the United States some time ago respecting the use of opium in certain forms of peritonitis. Some surgeons became actually hysterical over "battening a patient down with opium." We may say briefly that a great many, if not the majority of obstetricians, think now that opium is a valuable medicine when properly used. If possible it should be withheld until a diagnosis is made, and also until eliminative treatment has been carried out to some extent at least, and when administered it should be given in doses sufficient to produce a profound effect upon the nerve centres. Insufficient doses of opium or morphine do more harm than good.

Drainage is now recognized as very important. If there is infection within the uterus the patient should be put in the Fowler position, *i.e.*, sitting up in bed, or nearly so, for a good portion, or nearly all the time, if possible, as long as there are serious symptoms. This tends to cause the intra-peritoneal fluids in cases of peritonitis to gravitate from the upper to the lower part of the peritoneal cavity, and tends to prevent general inflammation of the peritoneal cavity, encouraging instead the safer form of localized pelvic peritonitis. It also helps drainage from the uterus. Let us suppose one clearing out of the uterine cavity in a case of sapremia was indicated, and has been accomplished. After that we leave the uterine cavity absolutely alone so far as local interference is concerned. In carrying out such treatment we are following closely the general surgeon.

For instance in empyema, many have ceased to wash out, but keep the patient at rest and encourage free drainage. Many of our abdominal surgeons employ the Fowler position, keep the patient at rest, and endeavor to promote free drainage. We recognize their difficulties in draining from a peritoneal cavity in which inflammatory processes are going on. We, fortunately, have no such difficulties to contend with. We can keep the uterine cavity absolutely drained by means of the Fowler position, or some of its many modifications.

The administration of oxygen in many cases of puerperal septicemia is generally endorsed. We have learned, however, what some of our forefathers knew before us, that it should be properly diluted, and we find that the best oxygen compound known is Heaven's pure air. Fortunately our physicians are teaching us to appreciate the inestimable benefits of the inhalation of fresh air. For several years, as is well known, they have been taking our tuberculous patients out of their hot rooms, as nearly hermetically sealed as possible, and have kept them in the open air. They have gone so far, to the horror of the laity be it said, as to adopt similar methods for patients suffering from pneumonia. We are now adopting the open air treatment for patients suffering from puerperal septicemia. The man who has done most in this direction, so far as I know, is Dr. Kennedy McIlwraith, of Toronto, who will soon, I hope, give us more definite reports of his results during the last few years.

Antistreptococci Serum.—Nearly ten years ago the British Medical Association, and the American Gynecological Association, after investigations which could hardly be termed thorough on either "side of the water," decided that the use of anti-streptococci serum in the treatment of septic infection was at least useless. The deliverances of these two bodies had the effect of discouraging the enthusiasm of some earnest workers without accomplishing any good. Some of us believe that in many cases septicemia has been cured by the serum, although the results of its administration are frequently disappointing.

#### BACTERIAL VACCINES.

We are very much interested in Sir A. E. Wright's investigations. Dr. George Ross, of the Toronto General Hospital, has done some excellent work along Wright's lines, especially by inoculation with bacterial vaccines consisting of devitalized bacteria of the same strain as those responsible for the patient's infection. We are favorably impressed at the time of writing, but are not in a position to express definite opinions.



## OTHER REMEDIES AND PROCEDURES.

It is of course generally conceded that rectal and subcutaneous injections of salt solutions are useful in septicemia, and in various forms of autointoxication. Opinions are divided, however, as to the efficacy of certain silver salts such as collargolum, etc. Complete hysterectomy, advised by some a few years ago for infection, is now practically "out of court." It is generally conceded that all pus collections should be opened, thoroughly drained, but I think not irrigated.

## ANESTHESIA.

Anesthesia during labor is most important from the standpoint of the accoucheur. Chloroform was, and is now, perhaps, the favorite obstetrical anesthetic in all parts of the world. We know, however, its indiscriminate use has not been devoid of danger. We should gladly welcome any drug, or combination of drugs, which might be administered to women in labor with perfect safety, and general beneficial results. Many of us have used the combination of morphine and hyoscyne (or scopolamine) with varying results. We do not think that it has yet been demonstrated that such a combination is absolutely safe for either mother or babe—especially in private practice. We believe, however, that the administration of some such combination will in the near future hold an important place in obstetrical therapeutics. We are glad that careful investigations as to this form of anesthesia are now being conducted in various parts of the world. We are especially interested in the work of certain investigators in Winnipeg and Toronto, and also in several cities in the United States.

## DISEASES OF PREGNANCY.

These, probably, receive more intelligent consideration now than ever before. The acute infectious diseases generally run an ordinary course during pregnancy; but, in certain cases, are more severe than in non-pregnancy. The dangers to the fetus are greater than to the mother, partly because of the poison of the infection through the mother, and partly because of the high temperature, which alone if long continued causes the death of the former. Little may be said about such diseases as tuberculosis and valvular diseases of the heart. The most important consideration in connection with these diseases, and, in fact, all serious diseases during pregnancy, is the rule now generally accepted that no diseased condition in itself calls for

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the induction of abortion or premature labor. If, however, in any such case treatment has no good effect, if the patient grows worse, and especially if life becomes imperiled, the uterus should be emptied. This emptying of the uterus is, however, a serious procedure, and we shall refer to it again.

Appendicitis occurs not uncommonly during pregnancy, and is probably often overlooked. The disease is quite as likely to appear during pregnancy as under ordinary circumstances. In fact we believe it is more apt to occur during pregnancy. What should we do when we have made our diagnosis? Operate at once. What should we do for other serious conditions discovered during pregnancy, such for instance as ovarian tumors? Operate at once. Without going any further into a pretty broad subject, it may be said that pregnancy should not in any case be a bar to any operation urgently required.

Pernicious vomiting of pregnancy is now being carefully studied. We are much indebted to Dr. Whitridge Williams, and his assistants of Baltimore, who have demonstrated, to some extent at least, the nature of the disturbances of metabolism which cause a peculiar toxemia, and, as a result, pernicious vomiting. Chemical examination of the urine in these cases shows a decrease in the amount of nitrogen excreted as urea, and an increase in the amount excreted as ammonia. Without referring to other changes we may accept the fact that this excess of ammonia excreted, or, as it is called, the ammonia coefficient, is a fair indication of the severity of the poisoning. In normal pregnancy it is 4 to 5 per cent., and in cases of toxemia may rise to 10, 20, 40 per cent. or even higher. Dr. Williams has found in his experience that, if this ammonia coefficient exceeds 10 per cent., the patient has serious toxemic poisoning, and the pregnancy should be immediately terminated. He also adopts the following classification: Reflex, neurotic, toxemic. We cannot at present, however, accept either the classification, or the 10 per cent. rule. In all the cases of serious vomiting of pregnancy that we have observed there has invariably been both a toxemia and a neurosis, and both conditions required careful treatment. We have also discovered that the ammonia coefficient may considerably exceed 10 per cent., and the patient may recover without the termination of the pregnancy.

We have stated that the emptying of the uterus is a serious procedure. We desire now to say that, in cases of pernicious vomiting of pregnancy, it is one of the most dangerous operations known to obstetric surgery. We have had three heart-rending tragedies in Toronto within a short time. Three

healthy, happy brides, after short illnesses from pernicious vomiting of pregnancy, died so suddenly after the induction of abortion under chloroform anesthesia, that the sorrowing relatives had not time even to say farewell. In connection with these serious cases, two things should ever be kept in mind: (1) The administration of chloroform is exceedingly dangerous; (2) forcible dilatation of the cervix is also exceedingly dangerous. Therefore the modern operation for emptying the uterus "at one sitting" should not be performed. The very common statement by experts that this "operation is practically free from danger provided perfect asepsis is observed," is woefully incorrect in these cases. The safest and most satisfactory method is the vagino-uterine tamponade or some modification of it. But one may say: "I know the rapid operation, even in serious cases, is often successful and satisfactory in every way." This is true, but it does not alter the fact that the rapid operation is the more dangerous procedure.

#### OBSTETRICAL OPERATIONS.

No special changes as to procedure have been made in minor operations during the last ten years excepting perhaps in a conservative direction. We have referred to curettage in acute septic infections. We believe the dangers connected therewith are appreciated by the majority. We think also that curettage under any circumstances is now done with greater care and caution than it was a few years ago. Reference has been made to the forcible dilatation of the cervix in cases of pernicious vomiting of pregnancy. It is now considered by many that rapid cervical dilatation is always dangerous, and the Goodell dilator is used less frequently now than formerly. As practitioners are becoming more skilled in their methods of vaginal and uterine tamponade, they carry out these procedures more frequently and more effectively, and as a consequence are getting chary as to rapid cervical dilatation.

Accouchment Forcè.—This naturally leads to a consideration of accouchment forcè which was so common a few years ago. We realize now that this operation is always dangerous when there is a rigid os, and, especially, when there is a rigid cervix which has not been "taken up." We hope also that most obstetricians are learning that this operation is so dangerous in cases of placenta praevia that it should be absolutely proscribed. In a general way it may be stated that accouchment forcè is never justifiable unless the os or cervix can be dilated with comparative ease. We hope it will soon be considered

advisable to delete from our text books the diagrams illustrating such methods as "Harris's manual dilatation of the cervix," and "Edgar's bimanual dilatation of the parturient os."

Vaginal caesarean section is thought by many to be an excellent substitute for accouchment force. After it was first proposed by Dührssen thirteen years ago, many surgeons both in Europe and America performed his operation, or some modification of it, and it was supposed that before now it would come into general favor. This is not the case, however, perhaps because, as a certain German writer expresses it: "It is too bloody an operation for the general practitioner." We can probably say now that the operation is indicated in a limited proportion of cases, such for instance as abnormal conditions of the cervix, from carcinoma, rigidity, stenosis, etc., grave eclampsia, threatened rupture of the uterus, etc. We may also say that the operation is not so suitable, after pregnancy has advanced six months or more, as the operation by the abdominal route. In any event it seems already to have been demonstrated that this operation will remain in the hands of experts, *i.e.*, it will very seldom be done by the general practitioner. Perhaps the most important consideration in connection with these operative procedures is that the urgency of immediate and rapid delivery in certain emergencies has been grossly exaggerated in the past. Such exaggerations gave a tremendous impetus to accouchment force, with most deplorable results. The tide has turned, however, and we now find that very rapid emptying of the uterus is seldom considered necessary. Or, in other words, forced delivery is going out of fashion, and vaginal caesarean section is not becoming very popular. Bossis's dilator is becoming obsolete. Dilating bags are becoming less popular. The old-fashioned Krause method, with efficient vaginal tamponade, is probably the favorite method of inducing labor at the present time.

Symphiseotomy has a fair status, and is generally recognized as a suitable operation in a very limited proportion of pelvic deformities. Hebotomy, or pubiotomy, an operation suggested in Italy about 100 years ago, and recently adopted by Gigli, in cases formerly considered suitable for symphiseotomy, does not appear to be making much headway.

Caesarean section is the oldest major operation known in obstetric practice, and to-day it is the most popular operation in its class. For centuries it was well known, and much discussed, and occasionally performed, but the mortality rates were frightfully high. That, however, has been changed to a



wonderful degree since Lister taught us antiseptis, and Sanger taught us improvements in technique. The mortality rates are now very low. In properly selected cases conservative caesarean section, done at the proper time, with reasonable care and skill, is one of the safest and best operations now known to surgery. —*The Medical Standard.*

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## THE NEEDS OF THE UNIVERSITY OF TORONTO.

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BY R. A. FALCONER, D.LITT., LL.D., TORONTO.

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The Faculty of Medicine of the University of Toronto is now one of the largest on the continent and its rapid growth has occasioned difficulties similar to those in other departments of the University. There are difficulties in the way of accommodation and of instruction. During the past year the pressure was greater than usual because it was the last in which students could register for a four years' course, and the first year in particular was very large. Contrary to general expectation the attendance in the first year of the five years' course has not fallen off much from the average of the past few years.

Thus far the wave has been borne in upon the primary subjects, Biology and Anatomy, but it will soon rise into all the departments. With the appointment in June, 1907, of Professor McMurrich to the chair of Anatomy this subject received for the first time the full services of a professor, and since then necessities, which even before that time had been evident, became more apparent. Naturally one cause leading to this was the large incoming year to which reference has already been made. Not only larger space, but more rooms for specific departments of Anatomy are required, for it must be recognized that no great school of medicine can be built on anything less than a sure foundation of its basal sciences.

In addition, the demands of this and other primary subjects will before long bring changes in the methods of instruction. At present the professor has no one of the grade of associate-professor or lecturer to assist him; no one who gives his whole attention to the subject and who for the time at least is pursuing this science as his single purpose. The supervision of students is somewhat intermittent and less effective than it would

be under a permanent staff. Not that the work done by the demonstrators has not been satisfactory as far as it has gone, but their attention has necessarily been divided, though their labors for the University have often far exceeded what might have been expected, considering the trifling remuneration which they receive.

In the department of Pathology similar conditions prevail. This large and fundamental subject is with difficulty dealt with by one professor and the sessional help that is given. Fully manned departments of Pathology and Bacteriology are so essential, not only to the University but to the Hospital, that in them expansion must come before long. Already the University authorities have decided to institute a chair of Chemical Pathology, and have set aside an amount for the erection of a temporary laboratory in the General Hospital, but so far the choice of the occupant of this chair has not been made. It is confidently hoped that, if a man of ability and independent power is found for this position, the clinical departments of the Hospital and consequently the University clinical instruction will be greatly developed.

This leads to the question of the local expansion of the Medical Faculty. Changes were made last summer in the present building to meet the needs of the Physiological and Pharmacological departments. Professor Brodie and Dr. Henderson both needed more room. When developments in Pathology and Bacteriology become imminent we shall be confronted with the fact that these might be most satisfactorily effected in closer relation with the Hospital. So intimately are these subjects related to clinical work that probably we should look for laboratories in the Hospital grounds.

Here we are on the threshold of that question of perennial difficulty,—what is to be the connection between the University and especially the General Hospital but also the other hospitals of the city? Both by past practice and by the grant of \$300,000 made to the Toronto General Hospital on behalf of the University its connection with the University is bound to be very intimate. At present some of the necessary work of the Hospital is done by the University staff, in Pathology for example, and it is difficult to know just where to draw the line. Clinical laboratories are also being more and more required, and while it would seem that they ought to be erected by the Hospital authorities, the students of the University will in the long run suffer, should such facilities not be provided for the professors of clinical medicine and surgery.

The connection between the Hospital and the University is bound to be vital in the clinical departments. Students of the University use the Hospital with the purpose of learning the art and practice of their profession. Clinical instruction is no secondary matter for them, coming in incidentally after a physician or surgeon has done his primary duty of attending to the sick patients. If those in charge of services in any hospital treat their work with the students in a perfunctory way, merely as a useful and profitable adjunct to the practice of their own profession, the value of these clinical instructors to the University is so small that the sooner they can be removed from the University staff the better.

Moreover the teaching of students reacts most favorably upon the practical work of the surgeons or physicians in their treatment of patients. They require to understand their work if they are to explain it to a group of critical students. They themselves are being tested, and they will soon show whether they are repeating by rote old themes and outgrown methods, or are abreast of the most scientific practice of the day. Theoretically, therefore, there should be no difficulty between Trustees of a Hospital Board and University authorities. The former seek to get the most efficient and wide-awake men as heads of their services, men who privately are pursuing their art with eagerness, and who perform their hospital work with all their heart and soul and mind. It is also just men of this type that the University requires for its clinical teachers. But unfortunately the experience is not confined to any one place that such boards do not always see eye to eye. Men differ in their judgments as to the qualifications of individuals, and there is much scope for disagreement. So a University with a great Medical Faculty requires to be able to determine the character of the teaching that its students are to receive. It should be able to recommend men of the proper medical ideals and practice for the instruction of its students. Again we are confronted by the hoary question, how can this be done without money? If we could erect our own hospital, the University would have at least the opportunity of manning it itself with a staff (for which it would take the responsibility) at once skilful in treatment and competent and earnest in instruction. Possibly there might be very little obvious change in the personnel, but the policy of the University might be shaped without the chance of its frustration by another responsible body. And yet it does not seem to be beyond hope that the generous benefactors of the Toronto General Hospital and the city may



be willing to co-operate with the University, and recognizing that skilful treatment of the highest possible order on the part of their clinical teachers is essential for University teaching, they may deem it safe to entrust the University with the appointments to such positions as are essential for clinical instruction.

St. Michael's Hospital and the Sick Children's Hospital are most cordial in their relation with the University, which, though it has no prescriptive rights in them, as it has in the Toronto General Hospital, has the use of their clinical material under instructors of our own staff.

The University is extremely fortunate in being likely to secure the fullest use of the Psychiatric Hospital which the Government is soon to build in the neighborhood of the University. The Hospital, which is under the direction of our new Dean, Dr. C. K. Clarke, will afford opportunities of great promise to our students and will be watched with interest by the profession not only in Ontario but on this Continent.

It must not be forgotten, in the midst of these clamant needs of the University, that a university and a hospital exist not only for training the average student to practise his profession in this country, and to heal the sick folk, but that these fundamental functions themselves will not be performed in the best way unless there is a nucleus of men engaged in their own or the public laboratories in seeking to trace the causes of disease, in endeavoring to discover new remedies, in patiently driving back those physical or mental foes which wage constant warfare with our delicately constituted human organism. These men add to the glory of our Canadian inheritance by proving that we too have the skill, the training and the self-sacrifice wherewith here as in older lands science is crowned as a benefactress of humanity. This scientific investigation costs money as well as effort of spirit and intelligence, and the cost is sometimes difficult to justify inasmuch as the results are uncertain or come about imperceptibly.

It is sometimes thought that the medical staff of the University of Toronto is very large, but that is not so. There is need of increase both on the primary and final sides. When the number of students is so large as it is at present, efficient individual instruction in laboratories and in the hospital is only possible with a large staff both in the more purely scientific and in the clinical departments.—*The University Monthly*.

# Progress of Medical Science.

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## MEDICINE.

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IN CHARGE OF W. H. B. AIKINS, F. A. CLARKSON, AND BREFNEY  
O'REILLY.

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### Atrophic Cirrhosis of the Liver.

The value of the Talma-Drummond operation for cirrhosis of the liver remains a somewhat undecided question. The present status of it is probably well expressed in the following conservative conclusions by Lieblein, which are based upon his own as well as the recorded cases.

In spite of the gratifying results obtained in isolated cases, the results in general have not fulfilled the hopes that were at first entertained. The effects, however, are not of such a nature as to lead one to discard the operation. The results to be obtained in any case must not be over-estimated. Atrophic cirrhosis is a disease that, in not an inconsiderable proportion of cases, can be either cured or, at least, kept for some years in abeyance. Especially in regard to the late results of the operation are statistics very few, and it is possible that our views will change a number of times within the years to come. Up to the present time, at least, the results have not been encouraging enough to induce internists to refer their cases for surgical treatment in the very early stages. On the other hand, it would be exceedingly profitable to be able to determine, upon the basis of a large number of cases, how satisfactory the results are when the operation is performed when the disease is in the early stages, and especially as at this time the operation is one of little severity. Not infrequently patients are referred to the surgeons when the general condition has become so bad that, despite the correction of the local defects, little improvement in the patient's state of health can be looked for.—*Progressive Medicine*, Dec., 1908.

### Action of Arsenic on Red Blood Cells.

In the *B. M. J.* of July 18th, James A. Gunn discusses the action of arsenic on the red blood cells. He just shows that the administration of certain metals produce only a change in the narrow cells of the leucoplastic type, possibly an attempt to

deal with the primary toxine, or no effect on the red elements. From certain original experiments, Gunn proves that solutions of arsenic will, if added to drawn blood, greatly retard the hemolysis produced by hypotonic solutions; also that the action of the drug is directed to the cells, the serum taking no part in the reaction. He also concludes that the arsenic is both rapidly and firmly fixed to the red corpuscle, and suggests that its beneficial effect in pernicious anemia may be due to its protective action on the formed cell, and not as the etiological factor. In a similar manner he alludes to the action of arsenic in malaria.

The author finally deals with the theories of the etiology of pernicious anemia, he just remarks on the fact that iron is useless as a therapeutic agent, and cites the well-known fact of the abundance in which it is found in certain organs. This tends to show that the defect does not lie in the hemoglobin, which in many cases is present in each individual cell in excess of that found in erythrocytes of normal blood.

Gunn suggests the strance of the red cell as the pathological factor in the disease, and its possible deficiency in lecithin or cholestrin as the lesion. This benefit following the use of arsenic he ascribes to its protective influence over the cell body, and that with the use of bone marrow to the proper materials being supplied from an external source, finally lecithin itself may prove of therapeutic value, increasing, as has been shown experimentally, the total number of red blood corpuscles.

### **Grocco's Paravertebral.**

At the meeting of the Italian Congress of Medicine, held in Rome in 1902, Grocco drew attention to a sign of pleural effusion which he believed to be new. This is an area of relative dullness extending along the vertebral column on the side opposed to the pleurisy; it is triangular in shape, with its apex near the upper level of the exudation, and its base at the lower limits of the thoracic resonance. It varies in width from 2 to 5 cm. After the publication of Grocco's observations Rauehuss affirmed that he had observed it repeatedly in children since 1896, and Korányi pointed out that he had described it as long ago as 1897. Numerous papers have been published on the subject, including one by Dr. W. Ewart, who found it to be present in a case of lumbar abscess. Other observers have met with it in pneumonia (Hamburger), in subphrenic abscess (Beall), and in association with an ovarian cyst (Smithies). The explanations suggested are either bulging of the mediastinum towards the sound side or damping of the resonance of the thorax in the



neighborhood of the effusion. Roch and Dufour, working in the wards of Professor Bard at Geneva, have confirmed the existence of this sign in pleurisy, but found it present also in pneumonia, and observed that it did not disappear when the fluid had been removed by paracentesis. They then looked for it in normal chests, and state that such a band of relative dullness is constantly present, of course, on both sides of the vertebral column, and assert that it is due to, and coincides exactly with, the gradually increasing thickness of the mass of muscles which lies alongside the spine. If this simple explanation be accepted, Grocco's sign can have no diagnostic value, but these critics make a reservation in respect to children, as they have not yet studied the question in them, and they have too much respect for the careful observations of Rauchfuss to wish to discredit them without going over the same ground; moreover, they admit that in children the muscles in this situation are relatively so thin and the thorax so elastic and yielding that the explanation they suggest may not hold good. They point out also that it is possible that in them the pathological dullness may be propagated to some extent towards the sound side.—From *British Medical Journal*, 1908.

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## OPHTHALMOLOGY AND OTOTOLOGY.

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IN CHARGE OF J. T. DUNCAN.

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### Ocular Symptoms of Brain Tumors.

In the *Long Island Journal (Medical)*, for August, is an excellent article by Ohly. Almost every form of tumor has been found in the brain. The various growths have various sites of predilection. The cerebrum is most frequently affected, the cerebellum next and the pons, the central ganglia, corpus quadrigemina and other parts in the order mentioned.

Cerebral tumors, by causing increased intra-cranial symptoms which do not belong to other brain lesions. These symptoms are:

I. The *diffuse or general symptoms*, and indicate the presence of a growth, but nothing more.

II. Tumor, as also other focal cerebral diseases which do not increase the intra-cranial pressure, are, as a rule, attended by

symptoms called *direct* or *localizing symptoms*; that is, symptoms which indicate the site of the lesion. These localizing symptoms are either irritative or paralytic, depending upon the part affected.

III. Finally, there are a group of symptoms called *distant symptoms*, not resulting from local disorganization, but due to pressure effects, inhibited circulation, toxic absorption and the like.

The *diffuse* or *general ocular* symptoms of brain tumor are, (a) double sided optic neuritis; (b) sudden complete blindness, and (c) transitory blindness.

(a) Optic neuritis and choked disc.

Before taking into consideration the origin of this symptom and its clinical picture, let it be understood that the term optic neuritis and choked disc are both the same condition, only that the choked disc is a more advanced stage of the optic neuritis, with more swelling and some involvement of the adjacent retina.

Optic neuritis may, and often does, exist with comparatively good central vision in its early stages, and therefore the patient may not complain of his sight until the choked disc is well developed. Wherefore the advisability of repeated early examination of the fundus of the eye.

The ophthalmoscopic picture shows in a choked disc the nerve head markedly swollen, projecting somewhat into the vitreous at least  $\frac{3}{4}$  mm. (as measured by the ophthalmoscope).

Optic neuritis is usually the first or one of the first symptoms of brain tumor, however its appearance may be retarded until a late stage. It is present clinically in 80-90 per cent. of all cases.

(b) A not infrequent symptom which may call our attention to the presence of a brain tumor is *sudden complete blindness*, involving one, but generally both eyes. This may occur without, but generally with the presence of optic neuritis.

(c) *Transitory blindness*: This symptom is often overlooked and according to Hirschberg is a most valuable diagnostic sign in brain tumors. He states: "It takes much care to establish this very transient and rapid symptom. In an individual who is still able to read the smallest print, who has a good field of vision, suddenly a complete blindness develops without any other ocular symptoms. It lasts one to two minutes or less and recurs six to eight times a day and even more often.

Gowers believes this symptom occurs more often in tumors in the occipital lobe and is due to the direct pressure of the

growth on the optical centers. If this be so, this symptom would be valuable in the localization of the lesion.

In speaking of the *localizing symptoms*, the author takes up the different lobes, speaking first of lesions of the *occipital lobe*. There are no pathognomonic signs of tumor in the occipital lobe, but a growth anywhere between the visual cortex and the optic chiasm may produce homonymous lateral hemianopia (hemianopia, half defect of the field of vision of each eye).

*Parietal lobe tumors* may cause mind blindness.

*Temporal lobe tumors* show sensory aphasia.

*Frontal lobe tumors* may show no symptoms for a long time. In these three latter cases, ocular symptoms are only produced by extension of the tumors.

*Tumors of the cerebellum*: Intense optic neuritis with much swelling, with involvement of the surrounding retina coming on quickly, almost as a first symptom, suggests the cerebellum, and one-sided optic neuritis, or marked difference in the intensity of the neuritis on the two sides suggests the cerebellum, and is, on the whole, in favor of the tumor being on the same side as the excess of neuritis, where there are no other reasons for localizing the tumor in the front of the cerebrum.

*Conclusions*: In 80-90 per cent. of brain tumors, optic neuritis or choked disc is present. This is not a localizing symptom.

Tumors of the occipital lobe, cerebellum, pons and medulla, generally produce an intense double-sided choked disc, which is an early symptom. Transitory blindness is not infrequent in the early stages of tumors. Permanent blindness in one or both eyes may be an early or late sign, and is not dependent upon local optic nerve involvement.

Tumors of any portion of the optic tract may produce hemianopsia if situated more centrally than the chiasm.

The ocular symptoms may often change from time to time, due to varied pressure and increased tissue-involvement from the growth.

Our first aim is to diagnose the presence of the tumor, and here the ocular symptoms are of utmost importance; having done so it must be our endeavor to locate the site of the lesion. For this the ocular symptoms are also very valuable, especially so when the growth affects the optical tract.

In the Royal London Ophthalmic Hospital (Moorfields), Dr. James Taylor, a physician, attends in order to give his opinion on cases that may be referred to him by the attending surgeons.



In a clinical lecture (*Medical Press*), at the Hospital, he spoke of the cases referred to him:

“I think I ought, perhaps, to explain why I, a physician, am lecturing at this hospital. I have to see here cases which are referred to me by the surgeons, that is, patients who have come here on account of some surgical ailment, and of whom I am asked to say whether there is anything in their general condition which I can associate with their eye defect.

“The cases which I see here fall into two large groups: (1) Cases which seek advice on account of some ocular defect, such as diplopia; and (2) those who come because of some visual defect. The first are those in which patients seek advice on account of ocular defects, leading to diplopia. And this leads one to inquire what are the chief causes of diplopia. It is only another way of saying that the causes of diplopia are defects in the ocular muscles, and those defects are usually dependent upon some fault in the nerves supplying them. One of the causes of diplopia is paralysis of the sixth nerve. That may arise as the result of cold or of brain tumor.

“In many cases of brain tumor, whatever the situation, there is some defect of the sixth nerve or nerves. So we have to consider such paralyses in brain tumor from two points of view. There may be either paralysis from direct involvement by the tumor of certain nerves, or pressure upon them; or there may be indirect paralyses—i.e., from general intracranial pressure affecting nerves. In the last form the sixth nerve suffers most frequently. Its course is across the whole surface of the pons, and considering what an exceedingly fine filament the nerve is, it is not surprising that when there is great distension of the lateral ventricles there should be an affection of the sixth nerve. And, seeing the long course of that nerve, its paralysis does not afford any exact localizing sign. An affection of the third nerve also may occur from either direct or indirect pressure. Where the pressure is indirect the paralysis is generally partial, but the direct pressure of a tumor causes, nearly always, complete palsy.

“The second great class of cases are those in which advice is sought for visual, as contrasted with ocular defects. A certain number of cases referred to me here have tobacco amblyopia. And these cases should be investigated from the point of view of the condition of the urine. I have seen here at least two cases of failure of vision with a central scotoma for colors in which tobacco has not been used for 20 years, and occurring in

patients who are teetotallers. In both of them I found sugar in the urine. And that points a moral which has been well recognized for a considerable time, *i.e.*, that a very small quantity of tobacco is effective in causing amblyopia in cases in which sugar is present. That is to say, a diabetic patient will get tobacco amblyopia from using a very small quantity of tobacco.

"A large class of cases which I see here are those of optic atrophy occurring in tabes. I do not think a week passes without my seeing at least one such case, and they are among the saddest one has to deal with, either in hospital or private practice, because the prognosis is usually exceedingly bad. They may come at a comparatively early stage, when perhaps the vision of one eye has failed a good deal more than that of the other, and the other eye is just becoming affected. In certain cases, no doubt, there is a certain tendency toward arrest; but I regret to say that in the vast majority the tendency is for the optic atrophy to become progressively worse, and lead to complete blindness. Frequently no other symptoms are present, and treatment is not of any great efficacy. As a rule, the knee-jerks are absent in those cases. In some, the knee-jerks are present, and even excessive, but in those cases one always has to think of the case possibly becoming one of general paralysis. As a rule, no ataxy is present, but in a certain proportion it is present, and I have known even very advanced ataxy associated with optic atrophy.

"Another class of optic atrophy, of which I see very few at Moorfields, is that associated with disseminated sclerosis. That is because the so-called optic atrophy of disseminated sclerosis so rarely leads to visual defect.

"Another large class of cases in which visual defect is common is that of albuminuric retinitis, of which I have shown you instances. They have certain retinal changes, albumen in the urine, and usually cardiac hypertrophy. In some cases there is no albumen, but the urine is of low specific gravity, and in the latter class there is usually cardiac hypertrophy. Where there are no changes such as I have mentioned, one supposes that cases with retinal hemorrhages are cases of idiopathic arterio-sclerosis. Some of these, with retinal thrombosis, I have shown you to-day. There is usually a history of sudden failure of vision in one eye, and hemorrhages in the eye may be very abundant, showing obvious blocking of one large vein or artery."

### Improved Yellow Oxide of Mercury Ointment.

Since anything about the value of Y. O. ointment as an eye remedy immediately attracts the attention of physicians practising in and about Cincinnati, owing to the fact that one of Cincinnati's distinguished oculists, Dr. W. W. Seeley, first introduced it, it is interesting for us to note that at a meeting of the Ophthalmological Section of the New York Academy of Medicine, held January 20, 1908, Dr. T. R. Chambers read a paper on "Improved Yellow Oxide of Mercury Ointment" (*Knapp's Archives*, May, 1908). He states: "This ointment has been, and will continue to be, a most universally employed medicative the world over. It is recommended in all works on diseases of the eye." He states that it has, however, one great drawback, so serious that some individuals have preferred the disease to the remedy. The drawback in question is the careless way in which it is dispensed by the average druggist, who mixes the crystals in a little oil and then vaseline, leaving pure crystals unpulverized to act like a fiery caustic when put in the conjunctival sac. He recommends the following mode of preparation:

Mercuric chlor. corros. ....	25 grammes
Sodium hydrate .....	10 grammes
Distilled water, q. s.	

*Instructions.*—Dissolve the mercuric chloride in 250 c.c. warm distilled water, and filter. Dissolve the sodium hydrate in 250 c.c. cold water. Pour the mercuric chloride solution slowly in the sodium hydrate solution. Allow this mixture to stand one hour at a temperature of 30 deg. C. and agitate frequently. Decant the supernatant liquid from the precipitate, wash the precipitate with distilled water until *free from caustic soda*. The resulting magma must be thoroughly dried before being mixed with vaseline.

Druggists should thus make up the concentrated stock, of which four grains represents one grain of yellow oxide of mercury, and from this they can quickly reduce to any strength by the addition of vaseline according to the order given on the prescription.

This ointment will be smooth, uniform, elegant, effective and unirritating.

### Stricture of the Nasal Duct—Its Treatment.

Ophthalmologists have been divided for years about the surgical treatment of stricture of the nasal duct. Some advo-



cate the use of small probes, up to Bowman's No. 6, or 8, claiming that they get a thorough dilatation of the canal. On the other hand, some swear by the use of large probes, saying that a full dilatation of the canal can only be established by the use of a probe with a diameter of 3.5 to 4 millimetres. Among the latter we find the name of Theobald. He says it is absurd, with a probe of 1.5 millimetre diameter, to try and restore to its normal dimensions an occluded canal, which in health has an average diameter of 4 millimetres.

With such an array of talent on both sides upholding either the use of small or large probes in the treatment of stricture of the nasal duct, a beginner is at a loss to know which method to adopt.

After several years experience I would recommend the use of large probes. If the teachings of Theobald are carried out, the oculist will meet with very few failures to cure lachrymal stricture with its sequela, dacrocystitis.

In treating a case of lachrymal stricture, after first slitting the lower canaliculus with a Bowman's knife, a No. 5 Theobald probe is passed through the nasal duct. Occasionally it will be found that we have to start with a smaller size, but this is rare. I increase the size of the probe to the next higher, at each visit of the patient, every alternate day, until No. 14 or 16 is reached. Then I request the patient to report at first twice a week, then once a week. After the stricture is fully dilated I have my patient, if she lives in the country, or any distance away, pass a No. 12 Theobald probe at least once a week for a year, or more, to prevent any return of the stricture. Some may say this is unnecessary, but the patient can learn to pass the probe with little or no inconvenience, and is not so apt to have any recurrent dacrocystitis. The probes are allowed to remain *in situ* for from 20 to 30 minutes. The lachrymal probes must be passed down through the nasal end of the duct, for if the stricture is seated in this region all the dilating above does no good.

The interior of the nose, such as sinus trouble, and atrophic rhinitis, etc., must receive proper treatment. The best authorities recognize the fact that nasal trouble causes the great majority of cases of stricture of the nasal duct.

In conclusion, I think that many patients would be spared the ordeal of such operations as extirpation of the lachrymal sac and gland for stubborn epiphora, if the lachrymal canal were thoroughly dilated with Theobald's probes Nos. 14 to 16.

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**PEDIATRICS.**

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IN CHARGE OF ALLEN BAINES AND W. J. GREIG.

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**Case of Renal Calculus in a Child.** BY R. G. DUN. (*Medical Press*, June 10, 1908.)

Child, aged six years, ailing with stomach pains and hematuria. The urine was described as dark red sometimes. This had been going on for two years. Examination showed nothing abnormal in the kidney region, nor did the examination of the urine reveal anything. X-ray photo, however, showed a very definite shadow in the right kidney region, and on operation a stone was found.

The case is recorded on account of the rarity of this condition in children. This supposed rarity is due, the author thinks, to the difficulty of diagnosis and suggests the importance of radiography as an aid. Henry Morris says that, of 379 cases of stone in the kidney referred to by him, only one was in a child under ten years.

A study of the few reported cases shows that practically all of them come under the surgeon's care for hydro- or pyonephrosis. This suggests that the early signs of stone in the kidney had been overlooked.

**Experiences with the Conjunctival and Cutaneous Tuberculin Tests.** BY HENRY L. SHIVELY (Pediatric Department of the *Journal of Obstet.*, Aug., 1908).

Twelve cases were submitted to the Calmette test. Seven gave positive reaction and of these three were undoubtedly tubercular. In three others, clinically the cases were not tubercular, and in one there was doubt.

Five cases re-acted negatively, and of these, three were clinically non-tubercular. Two were clinically tubercular, but subsequently cleared up, thus confirming the Calmette reaction.

In the cutaneous test (Von Pirquet's) the arm was carefully cleansed and abraded over three small areas. The tuberculin solution was rubbed into two of the areas, and the third area was used as a control. The test consisted of a 25 per cent. solution of Koch's old tuberculin, with sterile normal salt solution.

Forty-one cases were tested, and of these 29 reacted positively. In 20 of these a clinical diagnosis of tuberculosis had been made.

In the 12 negative cases, in 6 tubercle was undoubtedly

present, in one of them the bacillus was found in the sputum; in 5, tubercle was not present, and in one there was doubt.

*Conclusions.*—In the employment of these tests, there are sources of error which cannot be explained, and these errors are frequent enough to allow little dependence to be put on the tests in doubtful cases. It is as reliable, however, as the old tuberculin test.

The cases are too few to warrant any general conclusion being drawn, but so far as they go it would appear that both the conjunctival and cutaneous test would be misleading if depended on for diagnosis in a doubtful case of tuberculosis.

**Modern Laboratory Feeding and the Wide Range of Resources which it Provides.** BY THOMAS MORGAN ROTCH (*Archives*, Sept., 1908).

The object of the paper is to show the profession how unnecessary it is to use any of the patent or proprietary foods, because, knowing what each food contains of value, this constituent can be added in the milk prescription at the laboratory. In the course of the paper the author describes in a practical way all the important points in infant diet. He begins with the fats. He says that the cream from the Holstein breed is more desirable than that from the Jersey. He claims that the successful use of fats depends on the knowledge by the physician of the requirements of the individual case. He discusses fully the different carbohydrates, lactose, dextrose, sucrose and maltose.

Pure starch is to be used for two purposes: First, to render the precipitated casein finer by mechanical means; second, for purposes of nutrition.

Table I. shows the kind of fermentation and the relative rapidity of conversion which the sugars undergo. Table II. gives the possible amount of sugar assimilated in twenty-four hours without overflow. Table III. shows the changes which the carbohydrates undergo before their assimilation in the form of dextrose.

He approves of the principle of dividing the proteids into whey and caseinogen (he prefers to use the term casein instead of caseinogen). One way of obviating the difficulties of casein digestion is to peptonize. He approves of citrate of sodium because it gives a flocculent curd, but only does what can be done by other means. The use of lime water and soda bicarbonate is considered, and he shows what a different effect they have when used in different proportions. He winds up by giving



a new prescription card for use by the laboratories, the striking feature of which is the options which are given.

Altogether this article is very valuable, not on account of the positive statements contained, but for its suggestiveness and the stimulus it gives to further study. It should be read in full.

**Henoch's Purpura and Intussusception.** BY MR. HUGH LETT  
(*British Journal of Children's Diseases*, Aug., 1908).

This paper reports one case and refers to several other cases of Henoch's purpura associated with intussusception.

The object of the paper is to discuss Henoch's purpura from a surgical point of view, and secondly the diagnosis from intussusception occurring during an attack of Henoch's purpura. The importance of the question is shown by the fact that cases of Henoch's purpura have been operated on for intussusception and none found, and again cases of intussusception have been found post-mortem in Henoch's purpura where none was suspected.

If vomiting occurs early it is against intussusception. If bile be present on the napkins it is against it. In the early stages of an intussusception the abdomen is neither distended nor tender at first, but will become so later on; while in purpura the abdomen is distended and resistant from the first. The crucial test, however, is finding a tumor, which the writer thinks can generally be done, if an anesthetic is given. Hemorrhage into the mesentery and great thickening of the lower end of the ileum have been mistaken for the tumor of an intussusception.

The presence or absence of a tumor is the important point of differential diagnosis, and affords also the surgical indication.

W. J. G.

## Editorials.

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### THE ONTARIO MEDICAL ASSOCIATION.

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Are the members of the profession of this Province taking as much interest in the Ontario Medical Association as they should? The large attendance and the great success of the meeting in Hamilton last year would seem to indicate that they do. We hope the general practitioners throughout Ontario will work for the next meeting, which will be held in Toronto, June 1, 2, 3, 1909. The successful general practitioner is, of course, a busy man, and in a large proportion of cases has neither the time nor the inclination to prepare a long scientific paper.

We all recognize the fact, however, that at large meetings of medical societies nothing creates more interest, or produces more discussion, than the short relation of interesting cases in practice, with brief comments on the same. Will the physicians and surgeons outside of Toronto kindly bear this in mind. The members of the various committees in charge of sections are very anxious to get papers and reports of cases from practitioners in all parts of Ontario.

As the Committee on Papers and Business is anxious to arrange a programme as soon as possible, those who are willing to contribute in any way are earnestly requested to correspond at once with the General Secretary, Dr. E. Stanley Ryerson, 243 College St., Toronto, or either of the Assistant Secretaries, Dr. Samuel Johnston, 169 Carlton St., Toronto, and Dr. J. E. Davey, 145 King St., Hamilton; or to any of the following secretaries of sections: Dr. Arthur B. Wright, 329 Church St., Toronto, Secretary of Section in Surgery; Dr. F. Arnold Clarkson, 471 College St., Toronto, Secretary of Section in Medicine; Dr. Colin Campbell, 93 Bloor St. W., Toronto, Secretary of Section in Eye, Ear, Throat, Nose; Dr. J. A. Kinnear, 177 Carlton St., Toronto, Secretary of Section in

Gynecology, Obstetrics and Diseases of Children; or Dr. Chas. A. Hodgetts, corner Avenue Rd. and Eglinton Ave., Toronto, Secretary of Section in Preventive Medicine.

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### DEATH ON THE OPERATING TABLE.

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Nothing in surgery is more tragic or more heart-breaking for a surgeon than a death on the operating-table. The surgeon who, under such circumstances, leaves the operating-room and announces the result to the relatives, goes through a terrible ordeal.

Dr. George W. Crile, Professor of Clinical Surgery in the Western Reserve University, Cleveland, in a recent lecture on "Surgical Pathology," delivered before the College of Physicians of Philadelphia, Dec. 11th, described his method of resuscitating individuals apparently dead. The particulars of this method are described in the *New York Medical Journal* of January 2nd. From this we summarize as follows: "Patient in prone posture, rapid rhythmical pressure made on lower portion of chest, producing artificial respiration and, to some extent, artificial circulation. Canula rapidly inserted in any artery and directed towards the heart; a rubber tube and funnel attached to this canula, and sterile salt solution is poured into the artery. When about a quart of fluid has passed into the blood vessels, 15 to 30 minims of a 1 to 1000 adrenalin solution is injected into the vessel by inserting the handle of the hypodermic syringe through the rubber tube nearest to the canula; synchronously with this injection the rhythmical pressure on the chest is brought to its maximum, so that the adrenalin solution shall reach the heart promptly.

"Such a technique must be applied promptly, and the operating staff should be so trained that the materials and instruments may be produced within two minutes after the cessation of respiration, or of the heart-beat."

This method of procedure requires considerable skill, and a certain special apparatus ready at hand as herein described.



It can be carried out only in hospital practice. However, Dr. Crile's methods are, we think, worthy of careful study, and it is quite possible in the future they can be so simplified as to be made available for surgeons, obstetricians and physicians in general practice. Dr. Crile thinks, however, that direct transfusion of blood is the best remedy in hemorrhage and shock.

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### PHYSICAL THERAPEUTICS.

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It usually takes a newly-fledged medico one year in active practice to learn that drugs will not do all that is claimed for them in the text-book. He then casts about for some other method of treatment, and in Ontario, at any rate, finds none, because at college he has learned nothing of the many physical agencies which may be adopted. The result is that he either falls an easy victim to the nostrum vendor, or he becomes, as far as therapeutics is concerned, a nihilist, and the various fakirs who follow at the heels of the profession fatten on his dissatisfied patients.

But we may point a moral to adorn this all-too-common tale. In Germany, where they have the reputation for doing things thoroughly, 17 out of the total 20 medical schools give courses of instruction in therapeutic methods other than those of the *materia medica*, and practically every hospital in the Empire is thoroughly equipped to do the work. On this side of the water, Boston has taken up the subject, and the general hospital there has established a non-commercial hydrotherapeutic department, where students are trained, and to which the practitioners of the city may and do refer patients. No one is, however, treated without a doctor's prescription. We believe Philadelphia followed the example a few months ago. In both these places skilled operators are ready to do the bidding of a physician, and to use scientifically whatever physical means may be considered necessary for the patient's good. At the

same time a generation of medical students is being trained which will make such a thing as osteopathy impossible.

The question naturally arises, "Why can't Toronto do the same thing?" We have one of the largest medical colleges on the continent, and we are about to build a hospital that is to be second to none. The trustees of the proposed institution have now an opportunity to win immortal fame if they will follow Boston's lead and establish a physico-therapeutical department such as exists in that city.

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### HOSPITAL CHARITIES OF LONDON.

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The late Henry Isaac Barnato left a very handsome bequest, in the shape of \$1,250,000, to found a hospital or other charitable institution in memory of his brother and nephew. The trustees have absolute control over the fund, and complete powers as to the management of the institution. It is thought that the money will be used in building a large Jewish hospital, which will make special provision for poor Jewish patients.

The trustees of the King's Hospital Fund held their annual meeting December 14th, under the chairmanship of the President, the Prince of Wales. His Royal Highness referred especially to the valuable work which is being done in improving the administration of hospitals and convalescent homes, and co-ordinating them so as to equalize the accommodation and equipment in the different districts of the city.

This year the amount available for distribution among the various hospitals of London amounts to about \$700,000, an amount larger by \$100,000 than that available last year. In their distribution the trustees are giving greater attention to convalescent homes and to country sanitariums for tuberculous patients. Among the largest grants are \$60,000 to London Hospital; \$65,000 to King's College Hospital for the new building now being erected on Denmark Hill; \$10,000 to the Ealing Cottage Hospital, and other similar sums to special hospitals and convalescent homes.

## INTERNATIONAL MEDICAL CONGRESS.

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As previously announced, the International Medical Congress will be held at Budapest, Hungary, August 29th to September 4th, 1909.

We understand that arrangements have been made for a number of physicians of the United States to attend the Congress, the arrangements for transportation being in the hands of Messrs. Thos. Cook & Sons. It is expected that there will be a very fair representation from Canada. Special rates will be given by some of the steamship lines—these will be announced at an early date.

The last Congress was held in Lisbon, in 1906. It is thought by many that the intervals between the meetings are too short. At the Lisbon meeting, Professors Waldeyer and Posner, of Berlin, brought forward on behalf of the German Imperial Committee a proposal that the interval between Congresses should be extended. The suggestion fell through because of the opposition from Portugal. The matter has been revived by the Hungarian Committee, which proposes that the interval should be five years.

We learn from the *British Medical Journal* that the question has been discussed by the British Committee, and Sir Felix Semon has suggested that the interval between Congresses should be four years. This would prevent clashing with special Congresses. If the special Congresses met every two years and joined the International Congress, as sections, every four years, the scientific results would probably be more satisfactory than they have been in the past.

The *Journal* also expresses the opinion that it is important from the point of view of medical science that those who work in the narrower fields should have opportunities of bringing the fruits of their work before the judgment of the whole profession.

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## THE NEW CITY MORGUE.

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Dr. Arthur Jukes Johnson, Chief Coroner for the City, gives the following description of the new morgue in the *Canadian Journal of Medicine and Surgery*:

The new Morgue is undoubtedly the finest building of its character, and the most perfectly equipped for the purposes for which it was built, that there is on this continent. It is a large square stone and brick building situated on the north side of Lombard Street, on a lot which extends from No. 84 to No. 96. The main door, in the middle of the building, is reached by a set of stone steps, and on entering the building the first room on the east side is a general office for the purposes of the Morgue, and a place where messages can be taken for the ambulance of the Medical Health Department. During the day in this room there is a stenographer, with a telephone beside her; she leaves at 5 p.m., and her place is taken by a caretaker, who is on duty all night. Besides these two, the driver of the infectious diseases ambulance is about the Morgue when not occupied in moving patients to the Isolation Hospital, the stables of his ambulance being at the back of the Morgue.

The west side of the building on this floor is devoted in front to an identification room, and at the back to a post-mortem room; between these two rooms there is a cold storage plant, with receptacles that may be pulled out into either of these two rooms. A body arriving at the Morgue is taken into the post-mortem room, one of the receptacles is pulled out into this room and the body laid upon it, the receptacle being pushed back into the cold storage portion. If anyone wishes to see a body for the purposes of identification he goes into the front of the building and the body is drawn out of the opposite end of the cold storage plant and is shown to him in the identification room. In this way all bodies going to the Morgue will be preserved in cold air, and the public will be prevented from satisfying their morbid curiosity, as in the identification room all they can see, unless they have an order to see a certain body, is what looks like one tremendous filing system.

The coroner's court room is upstairs, and is a large and handsome room, very well lit, with a dais at the east end and a private room off it for the coroner's use. There are also rooms for witnesses, jurors and counsel.

The whole building is finished in quarter-cut oak, well heated by hot water system, and well lit by large windows for the day time, and gas and electric light at night.

### NOTES.

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The Fifth Pan-American Medical Congress was held in Guatemala City, Central America, from the 5th to the 10th of August, 1908. Seventeen countries were represented by delegates, besides Guatemala. There were eight representatives from the United States.

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The members of the profession of Toronto were much pleased at the result of the voting for the Toronto Hospital by-laws, at the recent municipal election on New Year's Day. The large majority in favor of the by-laws means that all classes of citizens are desirous of providing better accommodation for the sick poor of Toronto and outlying districts. The result of the vote will be that St. Michael's Hospital, Grace Hospital, Western Hospital and the Hospital for Incurables will receive each \$50,000.

The friends of all these hospitals have had what may be called a bitter, uphill fight, but they are winning out, and we are glad to say are doing great work in the interests of suffering humanity.

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### Personals.

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Dr. A. Wilson, formerly of Fenelon Falls, Ont., is now located at 1032 Bathurst Street, Toronto.

Dr. W. A. Young spent the greater part of January at Atlantic City, recuperating after his serious illness.

Dr. Geo. McDonagh, of Toronto, left on a trip to South Africa, January 16th. He expects to return about April 1st.

Dr. W. T. Hamilton, of High River, Alta., visited Toronto in December, and was engaged in post-graduate work for about six weeks.

Dr. John Caven sailed from New York for Naples, January 22nd, with the intention of visiting Rome and other cities in Italy. The catastrophe to the vessel on which he sailed, the *Republic*, necessitated his return to Toronto.

The Controllers, in connection with our Medical Health Officer, after much arduous work in the past, still find it difficult to agree in details as to the best available and most economical filtration plant.

Dr. Chas. A. Page (Trin., '98), who practised for some years in Kingsville, and recently returned from a trip abroad, where he did post-graduate work for a year and a half, has recently settled at 105 Bloor Street West.

Dr. Wm. B. Hopkins (Vic., '86), who practised in Marshville from 1886 to 1907, and who removed to Hamilton in the latter year, was at the recent election returned, near the head of the poll, as an alderman for Ward 6 in that city.

We congratulate the citizens of Toronto on the re-election of Controller Harrison. His work in the past in connection with sewage, purification of water supply, and other important sanitary matters, has been in all respects admirable, and in the interests of the inhabitants of this city.

The Rev. T. C. Street-Macklem, D.D., has forwarded his resignation as Provost of Trinity College. The announcement of this fact caused much regret among Trinity College's many friends, and at the time of writing efforts are being made to induce Dr. Macklem to withdraw his resignation.

In commemoration of his 60th birthday, several of the pupils of Dr. Edward L. Trudor, of Saranac Lake, N.Y., gave a dinner to him on September 19th, 1908, and presented him with two handsomely-bound volumes of their reprinted articles, entitled collectively, "Studies in Tuberculosis."

The following officers of the Winnipeg Clinical Society were elected for the present year: Dr. W. R. Nicholls, President; Dr. Chas. Hunter, Vice-President; Dr. J. G. Munro, Secretary; and Dr. J. E. Lehmann, Treasurer. Executive Committee: Doctors R. W. Kenny, J. H. Bond, and R. Rorke.

At a recent meeting of the Winnipeg Medical and Chirurgical Society, the following officers were elected: Dr. W. J. McLean, President; Dr. J. O. Todd, Vice-President; and Dr. C. H. Vrooman, Sec.-Treasurer. Executive Committee: Doctors Harvey Smith, Hunter, Galloway and Halpenny.

Dr. Chas. Sheard, Medical Health Officer of Toronto, and Controller Dr. W. S. Harrison, went to New York, January 12th, to secure further information about septic tanks, and consulted Mr. Rudolf Herring, one of the most eminent ex-



perts on sewage disposal on the continent, and also Mr. Allen Hazen, the distinguished filtration expert.

Dr. Peter Macdonald, of Wingham, Ont., has been appointed Postmaster of the city of London, in the place of the late John Cameron. He graduated from Trinity University in 1872, and shortly afterwards settled in Wingham. He soon became widely known and very popular. He has been an active politician and for many years was Member for East Huron in the House of Commons, and occupied the position of Deputy Speaker from 1900 until 1904.

## Obituary.

### DONALD MARTIN FRASER, M.D.

Dr. D. M. Fraser, one of the best known physicians of Stratford, died after a short illness, December 8, 1908, aged 62. He received his medical education in Montreal, and graduated from McGill in 1869.

### ALEXANDER R. STEPHENS, M.B.

Dr. Stephens, of Collingwood, one of the oldest practitioners in Ontario, died December 20, 1908. He was in active practice something like fifty-five years, having received his license in 1851, after passing an examination before the Medical Board of Upper Canada.

### ALEX. THOS. STEELE, M.B.

Dr. A. T. Steele (Tor., '00), who practised for some years in Shelburne, died at the residence of his father in Orangeville, December 28th, 1908, aged 30 years.

### RICHARD A. F. PENROSE, M.D., LL.D.

Dr. Penrose, who was for many years one of the best practitioners and teachers of the diseases of women and children in Philadelphia, died December 26th, 1908, aged 82.

## Correspondence.

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### TORONTO GENERAL HOSPITAL.

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*Editor of CANADIAN PRACTITIONER AND REVIEW:*

SIR,—In the year of grace 1907 it was announced with a flourish of trumpets that the Toronto General Hospital, which had been carefully and conservatively managed by a Board of Trustees for fifty years, was altogether out of date and, by implication, the then Trustees were antiquated, their methods archaic, and that the time had come for a new hospital and a new regime which was to shed lustre on the City of Toronto, and incidentally on the new board of governors. An Act was passed by the Legislature creating a new Board and giving power to build a new hospital on a new site. It was further stated that the new hospital would be used for clinical purposes only and would be therefore allied with the University of Toronto. The Government of Ontario was asked to vote \$300,000 in the interests of medical education and they voted the money. The City of Toronto was asked to give \$200,000 for the benefit of the sick poor, and the Council voted the money. The citizens were appealed to for subscriptions, and they subscribed liberally. In all some \$1,100,000 was voted or was promised by individuals. A large Board of Governors, composed of leading citizens, was appointed, but the real power was left in the hands of a small executive committee who proceeded to run things. It was found that the medical men who had given their services gratis for so many years were inefficient, notwithstanding the fact that they comprised most of the leading physicians and surgeons of the city. At first it was proposed that there should be one medical and one surgical service, but it was found that such a plan would not meet with support, and three medical and three surgical services were established with heads for the special departments. Men who were not on the University Faculty were ruthlessly ejected on the ground that all medical men in attendance must be teachers in the Faculty. Then it was found that certain former professors of Trinity Medical College were much too old, from forty upwards. So the 55-year rule having got rid of most of them, others were offered inferior positions, which they naturally declined. Others were willy nilly kicked upstairs on to the

consulting staff. Some preferred to resign rather than be elevated. Thus the way was cleared for the entry of the staff of all the talents. But it was found that there were some men who were obnoxious to a certain section of the University Faculty, who were too young to be oslerised, but the reigning dynasty decreed their decapitation. The influence of large subscribers is said to have been used to save them; men comparatively obscure suddenly became great lights, and last but not least, men who were and are in no way connected with the Faculty were appointed. How were they chosen? Echo answers, How? in the face of the declaration that the hospital was to be used by the Faculty for clinical purposes only! We ask what has been accomplished by all this turmoil, by all this upsetting and undoing? Is the service better? We trow not. Has the confidence of the profession in the hospital been increased? We have not heard of it. What then has been the result of the bloody revolution? *Some men have gotten greater prominence.* Surely that is worth while. Surely that is worth the cost of the heartburnings, sorrow, disappointments and injustice! Four or five men of the 500 practitioners in Toronto have better places, from the sham reorganization. Is the hospital any better off financially under the new administration? Is it not true that instead of having a surplus or of being able to make ends meet there have been large deficits? What has become of the \$1,100,000? Is it not true that \$650,000 has been spent on the new site, and where is the money to come from to build the new hospital? We are informed that the new plans are very fine, but the tenders amount to \$1,000,000, without extras. And what about the accommodations for patients? Where are the dear poor whom we have always with us, and for whom primarily the hospital exists? Up in the attic. Prices have been raised, things have been speeded up, the hospital has been commercialized. Modern principles of business have been made applicable to charity (save the word.) You pay your price, you take your choice, attic to private ward. If you have nothing and no friends, God help you. We think that the time has come for an investigation by the largest contributor to the hospital, the Government. To our mind, reorganization has been a poor farce and the new administration a failure.

GENERAL PRACTITIONER.



## Book Reviews.

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**PROGRESSIVE MEDICINE.** A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia; assisted by H. R. M. Landis, M.D., Assistant Physician to the Out-door Medical Department of the Jefferson Medical College Hospital. December 1, 1908. Lea & Febiger, Philadelphia and New York. Six dollars per annum.

Volume IV. deals with diseases of the digestive tract, by Edsall; of the kidneys, by Bradford; surgery of the extremities, tumors, infections, etc., by Bloodgood; and with diseases of the genito-urinary tract, by Belfield. To this Dr. Landis adds a valuable therapeutic referendum, one of the most useful we have ever seen, in which psychotherapeutics and the Emmanuel movement of Boston are put in their proper places. This number is excellent and perhaps the best of the year.

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**INTERNATIONAL CLINICS.** A quarterly of illustrated clinical lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners, by leading members of the medical profession throughout the world. Edited by W. T. Longcope, M.D., Philadelphia, U.S.A. Volume IV. Eighteenth series.. 1908. Philadelphia and London: J. B. Lippincott Company. 1908.

The last number of the year is full of very interesting material. Dr. Pratt's article on "The Advance of Physical Therapeutics" has already set some thinking, and some hospitals that are now being planned will be the better for it. Palmer has fifteen pages on psychotherapeutics, which are well worth reading.

All the other articles in this volume are up to the high standard set by the publishers, and will be found very valuable by any one who is not already familiar with the "Clinics."

MODERN MEDICINE, its Theory and Practice, in original contributions by American and foreign authors. Edited by William Osler, Regius Professor of Medicine in Oxford University, England; assisted by Thos. McCrea, Associate Professor of Medicine and Clinical Therapeutics in the Johns Hopkins University, Baltimore. Volume V. Diseases of the Alimentary Tract. Illustrated. Philadelphia and New York: Lea & Febiger. 1908.

Canadians have a great interest in this new system of medicine, for it is edited by Canadians, and some of our ablest colleagues have contributed important articles to it. In this volume, just come to hand, for example, one of the best monographs we find is that on "Diseases of the Esophagus," by Dr. John McCrea, of Montreal.

The whole tone of this volume is excellent. Those who fear that medicine is drifting towards nihilism will be greatly comforted when they glance at the amount of space devoted to treatment, which is always sane and rational.

We must single out for approbation the contribution by Opie, on the "Diseases of the Pancreas," in which is embodied a great deal of his well-known research work. It is quite the most modern article on this subject.

## Miscellaneous.

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### Glyco-Thymoline.

**DESCRIPTION:** Glyco-Thymoline is a deep claret colored fluid with the taste and odor of thymol and eucalyptol.

**FORMULA:** This preparation contains benzo-salicylate of soda, methyl salicylate from *Betula Lenta*, eucalyptol, thymol, *pini pumilionis*, glycerine and solvents. The alcoholic content is 4 per cent.

**ACTION:** A solution composed of Glyco-Thymoline one part, water three parts, approximates the alkalinity and salinity of the human blood, thus harmonizing with the secretions of tissues treated. When applied slightly warmed to the mucous membranes of the nose and throat it is soothing, solvent, mildly antiseptic, exosmotic and anesthetic. It promotes aseptic conditions and favors the restoration of normal functions of the mucous membrane. Internally Glyco-Thymoline is antacid, carminative, and anti-fermentative.

**USES:** This preparation is recommended in the treatment of all catarrhal diseases of the mucous membrane, particularly of the upper respiratory, utero-vaginal and rectal tracts, as a solvent, soothing, antiseptic and alkaline wash. Internally it has been successfully employed to overcome gastric hyperacidity, gastro-intestinal fermentation, summer diarrhea of infants, etc. In obstetrical and gynecologic practice it has also proven useful. Its mild, non-irritating properties will suggest its use whenever and wherever an alkaline antiseptic solution is desired. In dentistry it has also been extensively employed.

**DOSAGE:** *Externally*—Glyco-Thymoline may be used in solutions ranging from 10 per cent. to full strength. *Internally*—It may be used one-fourth to two teaspoonfuls in water as indicated.

**MANUFACTURERS:** The Kress & Owen Co., New York City.  
—*American Medicine*, November, 1908. New Series, Vol. III., No. 11.

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### Functional Neurotic Disorders.

The various vital functions of the organism are so intimately associated and correlated that it is impossible to definitely attribute any chronic nervous illness to disease or derangement of *but one* of the great bodily systems, *i.e.*, circulatory, respiratory,



# The Canadian Practitioner and Review.

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Vol. XXXIV. TORONTO, MARCH, 1909.

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No. 3

## Original Communications.

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### A CASE OF CERVICAL HYPERTROPHIC PACHYMEN- INGITIS WITH EXPLORATORY LAMINECTOMY.

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WM. GOLDIE, M.B., TOR.

A. PRIMROSE, M.B., C.M., EDIN.

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R. P., male, laborer, single, aged 30, was admitted July 30th, 1908, to Dr. McPhedran's service at the Toronto General Hospital, complaining of pain and stiffness in the back of neck, extending across the shoulders and down the arms to the finger-tips; and also of great weakness in the legs.

There is nothing of note in the family history: he was born in Scotland and there worked as a clerk, coming to Canada five years ago. He has worked at odd laboring jobs. About nine years ago he had a soft sore for which he took no internal medication.

Two years ago, while engaged at work that required almost continuous immersion of his hands in cold water and frequently having his feet wet from morning to night, he began to suffer from what he called "rheumatism" in the back of the neck, from which he would be free only for a few days at a time. It was dull in character, "As if I had been hit on the back of the neck with a hammer." It was so severe that during the first year he was laid off work for five weeks. From the first he also had some pain in the small of the back. During this time, he noticed:

First—That his appetite was failing.

Second—That he did not sleep as well.

Third—That he spat more than other chewers of tobacco, and that he was troubled at night by the saliva running from his mouth on to the pillow.

Fourth—That he had an excessive thirst.

In four or five months after the beginning of the pain he found that he could not raise himself in bed without the aid of his hands, and after six months, that the pain was extending to the right shoulder.

At the end of eight months he returned to trucking in the express sheds, and continued at work till the end of June, 1908. After he had been working a few months the pain grew less in the right arm, but soon began in the left shoulder with gradually increasing weakness of it and the whole left arm and hand. At last he had to give up work because of rapidly-increasing weakness in both of his legs. This, with sense of numbness, gradually increased until he entered the hospital, a month later, when he could only walk in a weak and shuffling manner.

Examination Aug. 1st, 1908. The patient lies stiffly in bed with all joints slightly flexed, except in the case of the neck, which is held rather fixedly with the head retracted. Nourishment seems fair, but there is general wasting of all the muscles of the trunk and limbs, most marked on the left side, and especially seen in the left peroneal group, the left supraspinatus and deltoid muscles, and in the thenar, the hypothenar, and the interossei muscles of both hands.

There is no wasting or weakness of the sterno-mastoid or the upper trapezius of either side; the left arm is very powerless in all its movements; all the muscles of the right arm are very weak. He is unable to sit up without the use of the right arm. The gait is weak and shuffling; the left leg will no more than allow him to move about; the right is weak throughout.

There is no apparent loss of power in the muscles supplied by the cranial nerves or the upper four cervical nerves.

Spasm is evident in the right arm and leg, and slight but definite in the left leg, while the left arm shows no evidence of any spasm, being flaccid.

All deep reflexes from the neck down are increased, except in the left arm.

There is constant pain deep-seated in the region from the fourth cervical to the third dorsal spines, made worse by active or passive movement. Percussion over these spines and those of the eleventh and twelfth dorsal and the first lumbar vertebrae causes sudden, dull pain.

Tactile sensation is dulled and delayed in both legs, and up as far as the umbilicus, where there is an ill-defined band of relative hyperaesthesia, then again dulling up to the clavicle, where there is hyperaesthesia over the distribution of the third cervical, above which all the sensations are normal.

Heat and cold are well distinguished from the knees down, while in the thighs, cold gives the sensation of burning, and heat can hardly be felt. On the left forearm he cannot distinguish between heat and cold; incorrectly on the arm on the inside and posteriorly, but correctly on the outside. The right arm and forearm yield a more prompt response than the left. Above the clavicle the sensation seems to be normal; below and over the trunk the interpretation is incorrect.

Sensation to pain is dulled in areas of dulling of tactile sensation.

Muscle sense is absent in the left arm and greatly dulled over the rest of the body, as far up as the upper trapezii and the sterno-mastoids.

Chest is not well expanded, respirations 20 to 24, otherwise respiratory system is normal.

Capillary circulation is sluggish; pulse of fair volume; tension low, and slightly irregular; rate 60 to 80; vessels are palpable. Apex beat is  $4\frac{7}{8}$  inches from the middle line in the 5th left intercostal space. There is a soft, systolic murmur heard at the apex not transmitted.

At the junction of the manubrium and the gladiolus there is a tumor two inches in diameter, raised one-half an inch above the level of the sternum, to which it is firmly attached. It is firm, but not hard, and has been growing about a month, being preceded by a slight pain.

The teeth are carious, the gums inflamed. The tongue is moist and coated. The greater curvature of the stomach is at the umbilicus; the liver, spleen and kidneys are apparently normal. Bowels are regular; urination slow, and for the last two weeks he has had some difficulty having to stoop or sit down.

August the 7th, lumbar puncture revealed no increase of pressure, nor could any information be obtained from the cellular elements. No test was made for globulins.

August the 12th, Calmette test was negative. Sections of tissue from the sternal tumor show fibrous tissue with marked perivascular infiltration.

He has had thirty grains of potassium iodide three times a



day for the last four days, and now shows marked signs of iodism, being very depressed, and begs that the medication be stopped. Since Aug. 10th he has had to be catheterized because of retention. He is failing rapidly and the paralysis is becoming more complete; there is almost complete flaccid paralysis of the left arm and leg, while the right arm and leg are much weaker.

August the 17th. He complains more of the pain in his neck and back, and of soreness and pain in the arms if they are moved. The left forearm and hand are quite powerless, but the arm can be adducted slightly. The legs can be drawn up and rotated weakly, the left being weaker than the right. The area of the third cervical nerve remains hyperaesthetic; about the nipples there is a small area which, if pricked, produces no sensation, but causes the patient to start and catch a short, quick breath; otherwise anaesthesia is nearly complete, the hyperaesthetic area about the umbilicus having been replaced by almost complete anaesthesia. The response to heat and cold remains the same as found at the first examination. There is practically no perception of pain from the distribution of the third cervical down.

The case was one evidently in which the main lesion ended abruptly at the level of the third cervical segment, involving the whole width of the cord, as might be inferred from the marked hyperaesthesia of the skin supplied by these nerves and definite beginning of the paralysis at the region of the distribution of the nerves from the fifth cervical segments. The history of the marked salivation in the early stages may be taken as evidence that the upper limits of the lesion may extend or may have extended much higher, or it might be taken as an indication that his work as mirror cleaner had caused him to suffer from mercury poisoning.

The lower limits of the lesion are hard to determine, as the wasting of the muscles throughout is more marked than one would expect from a simple transverse lesion of the cord; in fact this extreme wasting, together with the shooting pains in the arms, made worse on movement, and the disappearing hyperaesthesia at the region of the umbilicus, would be suggestive of nerve root involvement, that is, a wide-spread meningeal irritation.

The ability to distinguish between heat and cold below the knees, and not above until the area of distribution of the third cervical was reached, would go to show that the whole thickness

of the cord was not affected in the cervical region, where the injury seemed to be the worst.

The nature of the lesion could be judged of by the duration of the symptoms, the absence of deformity, the character of the sternal growth, and the apparent multiplicity of the lesions, so that in spite of not getting a definite history, it was thought to be due to syphilis.

The patient was rapidly failing in general health and the paralysis becoming almost complete, so that after consultation it was determined to operate at once in case a tumor mass might be present, the pressure of which might destroy the cord before specific treatment would bring about absorption. Moreover, if there was a gumma there was a chance that the absorption would not be complete, a fibrous mass being left that would still produce symptoms.

August 20. The patient was anaesthetized and placed in a semi-prone position on the left side. An incision was made in the middle line over the lower cervical and upper dorsal spines, and the operation of laminectomy proceeded with in the usual way. The laminae of the fifth, sixth and seventh cervical vertebrae were removed and the contents of the neuro canal inspected. Lying upon dura mater was a very vascular membrane, two mm. in thickness, and extending upwards and downwards on the surface of the dura for five or six cm. This membrane lay in close contact with the dura, but was readily separated from it, leaving an apparently healthy membrane beneath. The dura mater was now carefully inspected; it presented a perfectly normal appearance and there was obviously no tension within. One could find no evidence of pressure at this level upon the spinal cord.

Under these conditions it was deemed advisable to close the wound without opening the dura mater. A number of interrupted silkworm gut sutures were introduced and a temporary drain provided by means of a rubber drainage tube.

August 22. Two days after the operation there was very little change noted in the patient's condition. There was, perhaps, a slight increased weakness in the right arm. The bicipital reflex of both arms has diminished somewhat, but the tricep reflexes are increased since the operation. Knee-jerks are still increased. The ankle clonus of each foot is more easily elicited. The Babinski reflex present in the right foot before operation has disappeared, though it has remained in the left foot. Sensation is somewhat dulled, but otherwise does not vary from the condition before the operation. The pain in

the neck has gone, so much so that in spite of the wound he is in great comfort and moves the neck freely.

August 24. Movement is slightly better in the legs, which can be moved fairly readily, and in the right arm, so that the hand can now be approximated to the mouth. The left hand is quite powerless. Sensation about the same.

August 26. He has more power to-day than he has had since August the 9th, before the iodides were first started. For the past two days he has been heavily dosed with potassium iodide. His sensations for touch and pain are better to-day than since his admission to the hospital. He is able to distinguish between the head of a pin and the point, but the areas which were most nearly anaesthetic before, are still rather dull of perception.

Sept. 1. Improvement has been gradual, but constant. Both sensation and movement are better. He is able to move both legs quite freely, but not with great force.

Sept. 5. Improvement still continues. He cannot move the fingers freely, but he is now able to grip with some force. Patient looks better and feels stronger, and is in every way improved.

Sept. 15. His sensation is now normal and motor power is gradually increasing. Arms and legs can be freely moved, but he has not much power. He cannot carry out these movements with much force. While attempting to stand he found his legs too weak. The iodides are still continued.

October 16. Since the last note the patient has gradually improved, and has now returned to what is practically a normal condition as to sensation, reflexes and motor power. He is able to walk freely and has complete control of the various movements in the arms and hands. To-day he was discharged from the hospital.

The interest in this case is not only that it was a typical example of that rare affection, Cervical Hypertrophic Pachymeningitis, and that there was the usual difficulty in determining whether there was a tumor present, but also that the operation with the removal of such a small amount of tissue from the surface of the dura seemed to produce a definite improvement in the symptoms, especially in relieving the deep-seated pain in the neck before the administration of the iodide.

However, the value of the operation lies not in the seeming result of the relief of the pain, but in the determination of the absence of any tumor, for this was the point that we were not



able to determine beforehand. If a tumor had been present and medicinal treatment persisted in, much valuable time would have been lost, during which irreparable damage might have been done to the cord, or in case of it being a gumma, such improvement might have occurred from partial absorption of the mass that we would not have felt justified in operating to explore for the fibrous mass that so often remains after the bulk of gumma has disappeared, and which would prevent complete recovery by reason of the pressure it would exert.

## OBSERVATIONS AND REMARKS ON GLYCOSURIA.

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By glycosuria I mean the presence of glucose in the urine and detectable by the ordinary clinical tests. I shall therefore apply the term to a permanent as well as to a temporary appearance of glucose in the urine. I make mention of this inasmuch as many writers restrict the term glycosuria to a temporary appearance of glucose in the urine and designate permanent diabetes mellitus.

Although a great deal of work has been done in studying glycosuria, both in animals and in man, the pathogenesis of the malady is not well known. We do, indeed, know many facts concerning the causation and nature of the morbid affection, but so far no one has been able to formulate a theory of glycosuria in keeping with all known facts. All are agreed that the condition is a perverted physiological process, involving the capacity of the organism to care for sugar; but the exact manner in which this perversion is produced and the sequence of pathological events which lead to it, have not been determined. This defect in our knowledge is, no doubt, due to the great complexity of the metabolism of carbohydrates. We know that the nervous system, liver and pancreas take part in the work, and also probably muscle and other tissues of the body; but we do not know how their functions, involving carbohydrate metabolism, are correlated. For the present, therefore, we must make the best of the situation, making use of all known physiological and pathological, as well as clinical observations bearing on the subject. These should, I think, be our guides in the diagnosis and treatment of the disease. Some of the more important of these observations are the following:

1. The normal quantity of sugar in the blood is about one in a thousand. The sugar gives all the reactions for glucose; but whether it is free or loosely combined with another substance has not been decided.

2. Hyperglycemia is present in all cases of glycosuria, temporary as well as permanent, except in those due to undue permeability of the kidneys to glucose (renal glycosuria). This has been shown by Naunyn, Seegen, Pavy and other investigators.

3. Von Mering discovered that a transient glycosuria may be produced by the administration of phloridzin. This glycosuria is believed to be due to undue permeability of the kidney to glucose.

4. Minkowski and von Mering showed that in a dog complete ablation of the pancreas produces permanent glycosuria. If about one-fifth of the pancreas is left, glycosuria does not supervene. If the residual pancreas is less than one-fifth, diminished capacity for the utilization of carbohydrates ensues. This last condition is similar to that observed in the milder forms of diabetes mellitus in man.

5. Necropsies of diabetic patients have shown the presence of disease of the pancreas in a considerable number of cases. However, the morbid findings have been somewhat variable, arterio-sclerosis, hyaline degeneration of the islands of Langerhans, etc., and these have not been shown to have been the cause of the perversion of carbohydrate metabolism. On the other hand, no morbid condition of the pancreas has been found in many cases.

6. Claude Bernard demonstrated that, in a dog, puncture of the apex of the calamus scriptorius in the fourth ventricle produces a temporary glycosuria, which is believed to be due to a hyperglycemia from over-conversion of the glycogen of the liver into glucose.

7. Temporary glycosuria is common in many diseases of the nervous system, such as cerebral tumor, meningitis, epilepsy and multiple neuritis.

8. Carbon monoxide, carbon bisulphide, curare, morphine, amylnitrite and a great number of other poisons, administered to animals, may produce a temporary glycosuria.

9. In some patients suffering from Graves' disease, traumatic neurosis, alcoholism and high fevers, and also in some persons apparently healthy, the administration of a meal very rich in sugar—say 100 grammes of cane sugar—produces glycosuria. This condition is usually called alimentary glycosuria. It is also called glycosuria e saccharo.

10. A dog with Eck's fistula is in the condition of glycosuria e saccharo. This has been observed by Popelski and de Fillipi.

11. Cases of permanent glycosuria exhibit great variability in their ability to utilize sugar. In the mild forms glucose only appears in the urine when carbohydrate is taken in considerable amount by the mouth; in the severe glucose continues to be excreted in the absence of carbohydrate in the food. Between these two extremes there are cases of medium severity.



12. In the severer forms of permanent glycosuria the disturbance of katabolism frequently becomes aggravated. B-oxybutyric acid, and diacetic acid, and probably other acids, appear in the blood. This condition is known as acidosis, and has an etiological relationship to diabetic coma.

13. In the acidosis condition, acetone, diacetic acid, and B-oxybutyric appear in the urine.

These are some of the more important facts bearing on the subject of glycosuria. When one studies them one is not surprised that no acceptable theory for diabetes has been propounded. Some have suggested that it may be a functional disease of the pancreas; and I feel that there is much to be said in favor of this suggestion. If I were asked to formulate a theory of diabetes mellitus I would say that probably most cases were due to a functional disease of the pancreas caused by hereditary weakness, nervous disturbance, or hyperalimentation. The small minority of cases are probably due to organic disease of the pancreas.

I shall now report some observations and make a few remarks on subjects bearing on the etiology and treatment of glycosuria.

#### THE CAUSE OF THE COMPLICATIONS OF DIABETES MELLITUS.

Diabetes is a disease characterized by many complications. Of these, some of the most important are, coma, neuritis, cataract, retinitis, gangrene, eczema and diminished immunity, as illustrated by the frequency of boils, carbuncles, and pulmonary tuberculosis.

The coma of diabetes is, no doubt, principally due to the acidosis condition of the blood.

Of most of the complications one thinks of two etiological factors, namely, hyperglycemia and the condition of the tissues which gives rise to the hyperglycemia.

Excess of sugar in the blood is probably present in all cases of glycosuria in man—glycosuria from increased permeability of the kidneys alone, similar to that produced by phloridzin, has not been definitely recognized. Indeed the glycosuria supervenes as a consequence of the hyperglycemia. In a series of twelve cases Naunyn found excess of sugar in the blood in all. He also found a slight degree of hyperglycemia in patients in whom, through restricting the quantity of carbohydrate in the food, the sugar had disappeared from the urine. This is, I think, a very important observation, as it suggests

the possibility of slight hyperglycemia in apparently healthy persons, who, however, may not be actually healthy but pre-disposed to infections, eczema, neuritis and other affections, which are common complications of diabetes mellitus. Of course, this suggestion is based on the theory that excess of sugar in the blood and lymph is an important etiological factor of many of the complications of diabetes mellitus, which, I believe, is the opinion of all physicians. There is much evidence in favor of this view. One has only to observe the rapid improvement in this condition, particularly the mental state, of many diabetics when placed on a dietary which causes the glycosuria to disappear, to be convinced. However, there are, no doubt, other causes of the complications of diabetes mellitus. One of these is, no doubt, the condition of the pancreas and other tissues which give rise to the glycosuria. If their functions involving metabolism of carbohydrates are depressed, then surely their other functions, such as those involving immunity, are also diminished. Moreover, it is possible for this functional asthenia of cells to exist before glycosuria becomes a manifestation of the condition, and even before the appearance of hyperglycemia. To me this is a plausible theory and affords an explanation of some clinical observation which I have observed, particularly in persons who are intemperate in eating.

#### HYPERALIMENTATION AS A CAUSE OF GLYCOSURIA AND OTHER DISEASES.

The relationship of hyperalimentation to disease has not received the attention it deserves. When a person is subject to forced feeding there is usually an increase of the protein and probably also of the fat and glycogen of the body. This in some debilitated states has, no doubt, a beneficial effect on the health of the patient. In other cases I should think that the result would be injurious, especially when the overalimentation is associated with little physical exercise. The clogging of tissues with foodstuffs must necessarily interfere with the functions of the cells, both as regards metabolism and their defensive action in the body. This view is in accord with my clinical observations, as my experience in practice teaches me that overeating is frequently an important etiological factor of glycosuria, boils, eczema and many other diseases. This cannot be, as a rule, proved by scientific methods, because one does not know the normal capacity of each individual. For example, a man at forty years of age may be able to take care

of 250 grammes of cane sugar in one meal, and at forty-five only 150 grammes. If we should examine him at the latter age, without any knowledge of his previous capacity for sugar, we could not say that he is unhealthy, although his capacity to utilize sugar had diminished forty per cent. in five years. This patient, I submit, is in a condition which cannot be determined by our clinical methods. He has a sluggishness of metabolism which I believe is a common cause of disease. The only way to overcome the difficulty in diagnosis is for an examination of the metabolism of a person from time to time during life. This, I believe, will in the near future be one of the duties of the physician.

Diabetes in patients above the middle of life, and especially between fifty and sixty years of age, is frequently due, I believe, to hyperalimentation. I am unable to say or even to suggest, whether the disturbance is due to excessive eating of carbohydrate, fat, or protein, or a combination of foodstuffs. The fact that diabetes is very frequently associated with gout and obesity is evidence that there is a common cause. I may also add as evidence the occurrence of diabetes at this period of life almost exclusively among the well-to-do.

According to my experience, chronic furunculosis is another disease in which hyperalimentation is probably an etiological factor. In many cases a history of overeating combined with diminished loss of energy is obtained. In five cases which I tested for glycosuria *e saccharo* according to the usual manner, glucose appeared in the urine in two. This is all the more interesting inasmuch as furunculosis is a common complication of diabetes. I may add, as further evidence of the etiological relationships of overeating to furunculosis, that I have found hypoalimentation for a few days, followed by a normal dietary, a most useful measure in the treatment of furunculosis.

#### PSYCHIC DISTURBANCES AS AN ETIOLOGICAL FACTOR OF GLYCOSURIA, AND PSYCHOTHERAPY IN ITS TREATMENT.

Since 1855, the date when Claude Bernard demonstrated that a puncture of the floor of the fourth ventricle in a limited space produced a transient glycosuria in animals, very many observations have been made showing that a similar disturbance of metabolism may result from many other injuries and diseases of the nervous system, such as cerebral concussion and hemorrhage, epilepsy, tumors of the pituitary body, cerebral tumors in general, disseminated sclerosis, traumatic neuroses,



neuralgia, cerebro-spinal meningitis, and peripheral neuritis. The number of these maladies is so great and the nature of the injury so varied that one might expect a transient glycosuria from any acute injury or disease of the nervous system.

The appearance of glucose in the urine in these cases is generally believed to be due to loss of power of the liver to retain glycogen, so that the blood becomes flooded with sugar, which is manifested by glycosuria; and there is much to be said in favor of this which from want of time I shall not mention. I may add that some physicians have such unbounded faith in the theory that they place all the temporary glycosurias following convulsions, cerebral concussion and hemorrhage, and other morbid conditions of the nervous system, in a class by themselves, and designate the type hepatogenous glycosuria.

To me there does not appear to be sufficient evidence for this belief. There is no doubt that the liver cells, from some cause, do lose their power to retain glycogen, but it has not been shown that the carbohydrate metabolism of other cells, such as those of muscle, is not similarly perverted. When we consider the great variety of injuries and diseases of the nervous system in which glycosuria may be a symptom, why should the liver alone, of all the organs taking part in the metabolism of carbohydrates, be blamed for the perversion? To me a much more acceptable theory would be that not only the cells of the liver, but also those of muscle and other tissues taking part in carbohydrate metabolism, are in some way temporarily disturbed in their functions. If this theory were accepted, then it is probable that a functional disturbance of pancreatic secretion is the primary affection following the morbid condition in the nervous system.

Psychic disturbances, such as shock, mental worry, etc., have long since been recognized as capable of aggravating the course of diabetes mellitus. Any one who has had experience in the management of patients with this disease must have observed the baneful effects of these disorders of the mental condition. Indeed, with the exception of wrong eating and drinking, there is nothing more harmful to a diabetic than worry. In my practice this has been frequently illustrated. Excessive mental work and worry are invariably followed by an increase in the quantity of sugar excreted, and by aggravation of the complaints of the patient.

In one case of temporary glycosuria mental disturbance

appeared to be the cause of the condition. The following are my notes of the case:

J. C., male, aged 40, teacher of stenography, consulted me on September 10th, on account of frequent urination. Family history is good. With the exception of diseases of childhood patient has always had good health. Has been temperate in eating and drinking. During the last month patient has worried a good deal on account of the death of a friend. At the present feels depressed and does not sleep well. The disturbance of urination began about a week ago. Appetite and thirst normal. Bowels regular. Slight sclerosis of radials.

The examination of urine revealed the presence of sugar. Quantitative determination gave .6 glucose.

Sept. 11th.—Urine contains glucose.

Sept. 12th.—Urine free from sugar.

Sept. 15th.—Urine free from sugar.

Sept. 18th.—Patient was tested for ailmentary glycosuria in the ordinary manner. No sugar in urine.

An interesting feature about this case is marked change in the capacity to utilize carbohydrates which took place in a week.

In the treatment of glycosuria I have frequently observed that a change of scene, with relief from worry, has had a most beneficial influence on the course of the disease. This is, I think, evidence that mental worry is an etiological factor. In the case of one patient who had been passing 2,000 c.c. of urine containing 3.7 per cent. of sugar, the urine became free from sugar after a vacation of about two months.

The beneficial influence of psychotherapy in glycosuria appears to me to be very important. Probably it is all the more important because mental depression is looked upon not only as a symptom of the disease, but also as a causative agent of glycosuria. It is well, therefore, I think, to try to maintain the psychic state as nearly normal as possible. One should always try to develop a hopeful frame of mind in the patient. In the cases appearing after the age of forty, I think it is well to explain the nature of the complaint. I usually tell my patients that their capacity to utilize sugar and starches is diminished, not lost; and with a little care in eating and living for one or two years they will probably have greater freedom in eating.

#### SECRETIN IN THE TREATMENT OF GLYCOSURIA.

From the mucous membrane of the upper part of the intestine of any vertebrate one can prepare a solution of a substance

which, injected intravenously, produces a transient flow of pancreatic juice. To this pancreatic stimulant the name secretin is given. When given by the mouth it appears to be inert.

The fact that it has such marked stimulating action in the cells which secrete the pancreatic juice suggested to some physicians the possibility of the use of secretin as a stimulant of the cells which secrete the internal secretion of the pancreas, and as a remedial agent in glycosuria. This last proposition was tested by several physicians. Some reported favorable results; others unfavorable. In two cases of diabetes which I treated with secretin, given per rectum, no beneficial result was observed. The secretin was prepared from duodena of pigs. Possibly if the secretin had been given intravenously there might have been an improvement in the condition. This is, however, almost impracticable, as in order to keep up a prolonged action on the pancreas one must give injections every few minutes.

#### THE DIETETIC TREATMENT OF DIABETES MELLITUS.

In connection with this subject I wish only to refer to one point, and that is the importance of relieving the tissues of the excess of sugar. We should always keep in mind that the presence of sugar in the urine is the result of excess of sugar in the blood; and that it has been the experience of all physicians that the latter condition militates against improvement in the capacity of the tissues to utilize sugar. How it interferes with metabolism one cannot say. Possibly by its mass it modifies chemical change.

The first step, therefore, in the dietetic therapy of mild cases and of some of medium severity should be, after determining the capacity of the patient to assimilate sugar, to reduce the carbohydrate in the dietary until at least the sugar disappears from the urine. Moreover, one should not be in a hurry to increase the carbohydrate content of the food, as in many cases an improvement in assimilative power of the tissues returns slowly. Of course while the diabetic is on this dietary, or in fact any other, the urine should be examined at short intervals for the presence of diacetic acid. The presence of considerable diacetic acid is an indication for a change in dietary. The carbohydrate should be increased while the fat and possibly also the protein diminished.



# THE SURGICAL ASPECTS OF HEMOPHILIA, WITH SPECIAL REFERENCE TO HEMARTHROSIS.

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Two cases of this uncommon disease having been under my constant observation for the past twelve years, I have thought it would be interesting to the profession to learn my experience, especially as I have often been sorely perplexed and unable to receive any aid from medical literature. Owing to the rarity of the disease there must be cases of hemarthrosis resulting in deformity which might have been avoided had the true condition been diagnosed. One such case came under my notice a few months ago.

Our present knowledge of hemophilia is summed up in the definition: A congenital and hereditary disease of the vascular system, characterized by the occurrence of obstinate hemorrhages of traumatic origin.

Time does not permit of an historical survey of this disease; suffice it to say that it was recognized as early as the twelfth century. Hemophilia is probably the most hereditary of all diseases, and is peculiarly unique in the manner of transmission in that, while it is usually transmitted through the females to the male offspring, the former rarely, if ever, have the disease themselves. The sons of a bleeder and his brother's sons are, as a general rule, free from the disease, but his sisters and daughters transmit the disorder to their male offspring, and in the latter the disease is often of a very severe type. It occurs among all races and in all climates, and though climate is a negative factor in the etiology of this disease, it certainly influences the symptoms, as hemophilic joints are often tender and painful in cold, wet weather, thus very closely simulating rheumatism.

There have been many classifications made of hemophilia, viz., spontaneous, traumatic, acquired, etc., but that made by Weil is the simplest and most reasonable. He speaks of two types: (1) the hereditary, and (2) the sporadic. The hemorrhages are always traumatic in origin. Many authors speak of hemorrhages occurring spontaneously, but it is extremely doubtful if such is the case. If it were the case internal hemorrhages would not be so rare. In the three cases of hematuria that I have seen the cause was quite apparent in two of them,

while in the other there was doubtless a renal congestion preceding the hemorrhage, the patient being ill with grip at the time. An epistaxis may result from blowing the nose, but if the nares be examined congestion of the mucous membrane will be found. A few years ago I tamponed the nares of a patient, a boy 8 or 9 years of age, who was supposed to have hemorrhage from the stomach, having vomited a large quantity of blood just before I saw him, being awakened from a quiet sleep by nausea. On examining the nares the source of bleeding was discovered, the blood being swallowed during the sleep. The patient had a habit of rubbing his nose and doubtless caused the hemorrhage in this way. He was a typical hemophil, with joint lesions, and soon after left the city and was lost track of, though I have since heard that he has died from hemorrhages.

A hemophil of the severe type will sometimes bleed from the most trivial cause, and the tendency to bleed, the severity and obstinacy of a hemorrhage varies at different times in the same patient. The disease does not display equal severity in all cases. One member of a family may be affected only in a slight degree, while another may suffer from the severest type of the disease. The mild cases usually escape joint affections, while the severe types are sure to be so affected. The existence of mild cases accounts for the absence of symptoms in some cases until after puberty, and the tendency to hemorrhages in these cases usually lessens after adolescence. The severe types usually die before reaching manhood; the few, if any, who live, must be invalids always on the watch, fearful lest they meet with an injury resulting in the dreaded hemorrhage.

*Pathology.*—Though the efforts of investigators during the past have not thrown much light on the pathology of hemophilia, it cannot be said that no progress has been made. Of the various theories as to its cause, but two have received much attention: (1) That there is some morbid condition of the vascular walls. (2) That the blood of hemophils is abnormally low in clotting power. The former appears to be the condition existing in hereditary hemophilia, while the latter applies to the sporadic form. The clotting power of the blood varies greatly in the same patient. I have observed both extremes, and have seen hemorrhages persist stubbornly though coagulation took place quickly.

Labbe,\* in a recent review of the pathology of hemophilia, divides the theories into four groups: (1) The vascular. (2)

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\* *Revue de Medecine*, February, 1908.

The circulatory. (3) The nervous. (4) The blood theory; and quotes the results of the work of various authorities, viz., Virchow, Grandidier, Sahli, Kidd, Wright, Weil and others, and after a careful consideration of the results of the work of these investigators, concludes that the only theories to be considered are (1) the vascular, and (2) the blood.

Wright, Sahli and Weil have studied the coagulation of the blood most thoroughly. According to Wright, the blood of hemophils is low in clotting power, being deficient in calcium salts, thus causing the persistence of the hemorrhages. Sahli and Weil differ considerably in their views. Weil holds that there are two distinct types of hemophilia: (1) the hereditary, and (2) the sporadic; and states that while the blood in both types is deficient in plasma, owing to the lack of salts of calcium, there is in the hereditary type an anti-coagulation substance present. He has demonstrated by intravenous injections of human blood serum that the hemorrhage from the sporadic or occasional bleeder is readily controlled, while the same procedure has no effect on the hereditary type. Animal serum is less efficacious than human serum. Sahli attributes the deficiency of the plasma to some derangement of the vascular walls, whilst physiologically the cells of the vascular walls secrete special substances (Trombo kinose or zymoplastic substances), destined to set the plasma actively in motion. In hemophils this substance is lacking.

Labbe suggests a type of hemophilia due to lack of contractile power of the capillaries—a very old theory, and one of which much may be said in its favor.

*Morbid Anatomy.*—Various changes have been reported.

*In the heart.*—Virchow and others have found a thinness of the walls of the ventricles and interventricular septum, also fatty degeneration.

*In the blood vessels.*—Blagden, as far back as 1817, reported an extreme thinness of the walls of the blood vessels. In some of the vessels there were very few muscular fibres.

Dr. Percy Kidd reported observing abnormally thin blood vessels and fatty degeneration of the heart.

*In the joints.*—Legge very fully describes the changes found in joints. In a joint that had been recently affected and for the first time, apart from the presence of a small amount of blood, there was nothing abnormal. In later or more chronic cases, where there had been repeated hemorrhages, the synovial lining was thickened and discolored. The cartilages were thin, roughened and worn out, especially where there had



been greatest pressure. The edges of the cartilages were ragged and split into layers. Microscopically the cartilages showed fibroid degeneration with cell multiplication. The thymus gland, according to Virchow and Legge, often persists until late in life. Other observers have failed in some cases to find anything abnormal other than the joint changes.

*Symptoms and Diagnosis.*—One well-known author,\* in his work on diseases of children, states that hemophilia does not manifest its presence until the patient is about two years of age. While this may be true in some cases, it may be explained by the fact that as the symptoms are of traumatic origin an infant in arms is well protected from traumatism. The disease is present at birth, even during fetal life, and will become apparent if the child be injured or should unfortunately be circumcised. There have been cases reported in which the first hemorrhage has not occurred until as late as the twenty-first or twenty-second year, but these are cases of a mild type, and it would be very difficult to prove that there had never been any earlier manifestations. There is nothing peculiar or characteristic in the appearance of a hemophil, nor in the mental development, as has been stated by some writers.

The diagnosis in cases of bruises, cuts or abrasions of the skin or mucous membranes is simple. If the hemorrhage persists in spite of treatment, the family history should be carefully enquired into. A blow on the fleshy part of the body or limbs will cause a pronounced hematoma. I have seen an arm enormously swollen and greatly discolored from the shoulder to the hand, resulting from an insignificant blow on the region of the biceps. Very often a hematoma simulates an abscess. Instead of there being the characteristic "black and blue" discoloration it is intensely red and painful, the resemblance to an abscess being so great that a very serious, if not fatal, mistake might easily be made. The previous history in such a case is very important. In joint affections the diagnosis is particularly difficult in some cases, and as the knee-joint is most frequently implicated, I will devote my remarks to that particular joint. The synovial membrane of the knee-joint is the largest synovial membrane in the body, and owing to its being highly vascular and intricately distributed about the ligaments, and also there being three ligaments given off from it, viz., the ligamentum mucosum and the alar, it can readily be understood how easily it may be injured.

Hemarthrosis may be divided into three stages:

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\* Holt—Diseases of Children.

(1) The primary stage—where a joint is affected for the first time.

(2) The secondary or inflammatory stage.

(3) The stage of deformity and ankylosis.

In hemorrhage into a joint the onset is always sudden. Immediately after an injury the joint commences to swell and in a few hours is noticeably enlarged. The patient may not be greatly inconvenienced for the first few hours, especially if it be a primary affection, unless the traumatism has been of a very severe nature, but usually commences to limp in from four to six hours after the injury. The joint now has the characteristic appearance of an acute synovitis. In a primary affection the course may be of a very mild nature, the swelling subsiding and the joint becoming apparently normal within two weeks if given rest. In secondary affections, or in case of a primary lesion being neglected, the symptoms and course of the attack are entirely different, the heat, pain and tenderness accompanying the swelling indicating an inflammation. The pain usually is severe for the first three or four days, being greatest over the site of the injury. Palpation reveals a tense fluctuating swelling. The least movement causes pain and a grating sensation is felt and sometimes heard. The temperature is usually increased. The knee is slightly flexed and in appearance exactly resembles a tuberculous joint. The pain and tenderness are influenced by the weather, being much worse in cold, wet days. When the swelling subsides, the joint remains enlarged, the capsule being greatly thickened, on palpation a doughy resistance being felt over the bony prominences. This thickening may never entirely disappear. If the limb be measured it may be found to be from one-quarter to three-quarters of an inch longer than the sound limb, due to the increased blood supply to the epiphyses owing to the injury. The joint is noticeably enlarged, the patellar eminence more prominent and rounded than in the normal knee, and the movement of the patella markedly limited.

The third stage, that of deformity, is the result either of neglect or lack of proper treatment, or of repeated hemorrhages, causing degeneration of the cartilages and contraction of the ligaments and ankylosis more or less complete. Regarding the differential diagnosis between hemarthrosis and tuberculous disease one cannot lay down any hard and fast rules. In the absence of a hemophilic history, a mistake may readily occur. The greatest clinical difference probably is in the mode of onset. In hemarthrosis there is the sudden onset following

an injury, while in tuberculosis there is usually a period of indefinite symptoms preceding the swelling. If the question of operation arises, Calmette's tuberculin test should be tried and the knee aspirated with a hypodermic needle. The needle should be avoided, if possible, as in some cases, those of a severe type, there is great danger of increasing the trouble by such a seemingly small thing as a needle puncture.

Mistakes have unfortunately been made in opening a hemophilic knee for tuberculosis with fatal results. One of the most celebrated European surgeons twice within a few months made such an error, both patients dying from hemorrhage.\* Three similar fatalities have been reported in the United States within the last few years. Consequently, too great care cannot be exercised in making a diagnosis in this condition.

The following clinical histories will illustrate the nature and course of the disease in a typical hemophil:

H., aged 14. Was a well-developed male child at birth. He has two brothers and one sister, the younger brother also a hemophil, the elder being free from all suspicion of the disease. One maternal uncle had the disease, dying from the effects of repeated hemorrhages and joint affections, the nature of his trouble never being recognized, being called "rheumatism with complications." This is all the family history obtainable. The first indication of bleeding was when the patient was circumcised when he was five or six months of age, at which time he nearly bled to death, notwithstanding a liberal application of artery forceps and various styptics. My first experience with this patient was a few months later, when he cut his lip, the hemorrhage persisting in spite of all treatment. Calcium chloride was given without the slightest improvement, pressure being the only efficient remedy. The lip was again cut a few weeks later, this time the wound being much larger and the hemorrhage much greater, necessitating constant pressure between the fingers for a period of nearly three weeks. The next time the lip was cut I devised a small clamp, which was kept in place until the wound healed. A few weeks later I first used a solution of adrenalin extract and was relieved to find something that would control the bleeding. The patient's history from that time (1896) to the present has been a succession of cuts, bruises and joint affections, a blow on the soft tissues resulting in a large hematoma, the gums bleeding every time a tooth became loose, frequent attacks of epistaxes, etc. The first joint affection was in the summer of 1903, and, con-

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\* Koenig—*L'Encephale*, June 25, 1892.



trary to the general rule, it was the hip-joint, the cause being a blow resulting in a large hematoma of the soft parts, accompanied by a severe pain in the knee. The trouble was of short duration, and that joint has never been affected since. The knee was next affected, a little over three years ago. The injury was a slight one, but resulted in great distension of the capsule, with very little pain or discomfort, and subsided in less than three weeks, when the patient again injured the same knee, giving rise to much more serious trouble, necessitating his being confined to bed from May until September, when he was allowed up, wearing a modified Thomas knee-splint. This attack was accompanied by pain and increase of temperature, and the leg increased in length three-quarters of an inch. A few months later he injured the other knee. Each knee has since been injured, the second knee to be injured increasing in length half an inch the second time it was affected.

Last winter, during an attack of grip, he developed a severe hematuria, due to some congestive disturbance in the kidneys. Dr. G. W. Ross at this time estimated the clotting power of the blood, and, finding it low, all acids were eliminated from the diet, and calcium lactate given, but without the least benefit. Thyroid extract was substituted and the hemorrhage began to diminish, entirely disappearing in a few days. Last month (April) he injured his right elbow, causing hemorrhage into the joint, but no inconvenience whatever.

C.'s history is practically a repetition of the former. He has had two attacks of hematuria, one following a chill from being in bathing too long, and the other developing during an attack of whooping cough, both attacks responding readily to thyroid extract. During these attacks he suffered from severe pain at times, owing to blood clots in the ureters. It was impossible to estimate the amount of blood in the urine, the fluid passed having the appearance of pure blood. No casts were found microscopically. His knee-joint affections have resulted in increased growth—three-quarters of an inch in one leg and five-eighths of an inch in the other.

R. B., aged 6 years. This boy I operated upon at the Hospital for Sick Children a few months ago, for a large abscess in the abdominal wall, and found that he was a bleeder. There was profuse hemorrhage from the walls of the abscess cavity, which was firmly packed with gauze, saturated with a solution of adrenalin chloride. Calcium lactate was given, and each time the wound was dressed it was treated with adrenalin chloride, the tendency to hemorrhage ceasing on the sixth or

seventh day. We were unable to get any history of hemophilia in the family or of any previous trouble. The boy's mother died a few months previously from pernicious anemia. This boy probably belongs to the sporadic type of bleeders.

*Treatment.*—The desired object in all the methods of treatment employed to arrest the hemorrhage in hemophilia has been either to promote the coagulation of the blood or to cause capillary contraction. Many methods have been advocated to induce coagulation, viz., the use of gelatin locally, internally, and subcutaneously; calcium salts, locally and internally; animal extracts and blood serum.

Gelatin has proved a failure. It has been proved by Gley and Camus that it is not absorbed when injected subcutaneously, and that any effect it has is due to its acid reaction and the calcium salts it contains.

Calcium salts are very uncertain. Wright and other English authorities strongly advocate the use of calcium, while the continental authorities as strongly hold the opposite opinion. Labbe has been for some time, and is at present, experimenting with calcium, but has had only negative results. Of the many animal extracts tried but two have proved useful—thyroid and adrenalin. Human and animal serums have given good results and have been used by several authorities, but their value appears to be chiefly in the sporadic form, not in the hereditary. Serum should be used when fresh, fifteen days being the limit, and human serum is more efficacious than animal serum. Antidiphtheric serum may be employed. The dose employed intravenously is from 10 c.c. to 20 c.c., and the effects are said to last for one month. Subcutaneously the dose is double that given intravenously. Weil also uses it locally in the nose and on the gums by means of tampons. I have not had any experience with serum in hemophilia. My method of treatment has been satisfactory and is much more simple than serum therapy, and will be outlined briefly in treating of individual hemorrhages. Were I face to face with the necessity of an operation on a bleeder, I certainly would employ the intravenous injection of serum as described by Weil. The difficulties in the way of serum therapy outside of hospital practice are obvious. What the general practitioner needs is an ever-ready remedy, one that may safely be left in the hands of a patient's family when necessary, for use in emergency, and such a one we have in adrenalin.

In the treatment of cuts and abrasions, all one can do is carefully to observe the rules of aseptic surgery and apply ad-

renalin chloride from time to time, being careful not to bandage too firmly. Before the advent of adrenalin I tried every styptic and astringent in the pharmacopeia, and found them of little or no value in this disease, the preparations of iron proving injurious by causing necrosis and consequently enlarging the bleeding area. The actual cautery was on one occasion used and succeeded in making matters worse. Now, however, it is different, as adrenalin readily controls the hemorrhage when applied locally. A wound of the gums or mucous membrane needs very close attention. Here adrenalin is applied by a small compress and held firmly in place until the bleeding ceases, the process being repeated when the bleeding again commences. The adrenalin acts much better when the wound is first irrigated with hot water. The effect lasts for some hours. I have used adrenalin in its various forms ever since it was placed on the market and have never had it fail me.

In a recent article in the *British Medical Journal*,\* the writer states that "no remedies, local or general, have any effect on the hemorrhage," a rather sweeping statement, and, as far as my experience is concerned, absolutely wrong. Adrenalin has passed the experimental stage; its action is too well known to require any further reference here. With reference to internal remedies, thyroid extract has a beneficial action in hematuria, though in other hemorrhages I have never been able to see any good result from its use. Delace† and Fuller report cases of hematuria relieved by the administration of thyroid.

In epistaxis, plugging the nares both anteriorly and posteriorly should be avoided on account of the danger of causing serious trouble in the frontal sinus. An efficient method of controlling the hemorrhage is to insert a small tampon saturated with adrenalin chloride, leaving it in place until the bleeding ceases, when it may be removed gently and one smeared with adrenalin ointment inserted. Should bleeding recur the adrenalin solution is again resorted to. The nares should be gently irrigated every day with some bland solution and the adrenalin ointment applied. This prevents dry crusts forming, which irritate the nose and tempt the patient to remove them with the finger, causing further hemorrhages.

Large hematomata of the soft parts are sometimes very painful and accompanied by inflammation. If it be a limb that is affected it should never be bandaged tightly, as the pressure on the muscles might, by depriving them of their blood supply,

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\* Groves—*B. M. J.*, May 16, 1907.

† Delace—*Journal de Medecine de Paris*, January 23, 1898.



cause paralysis, as pointed out by Groves. It is quite possible for such a deformity to result without the injurious effect of bandage or splint. The proper treatment in such conditions is absolute rest and the application of hot boracic compresses, which relieve the pain and promote absorption.

*Joint Affections.*—A primary affection of the knee joint may get well in from ten days to two weeks, with no other treatment than absolute rest, but secondary affections are much more serious. It is important to carefully enquire into the nature of the injury, whether caused by a direct trauma to some portion of the capsule, or by a wrench or hyper-extension, in the latter case causing a hemorrhage probably from the synovial covering of the anterior crucial ligament. In hemorrhage into the capsule, caused by over-extension, the pain is usually severe and involves the whole joint, and the tendency to greater flexion of the leg is greater than in hemorrhage caused by a blow, the pain in this case being referred to the site of injury.

The pathological changes are practically the same in both cases, but are apparently more severe in the case of hyper-extension, consequently there is a greater tendency to fixation.

Absolute rest is the first indication in the treatment, and this can only be obtained by placing the patient in bed and applying a splint. A very suitable splint is a posterior splint, with a lock-joint that may be adjusted to any angle desired. The leg is bandaged to this splint above and below the knee, leaving the knee exposed in order that local applications may be made, and also that the progress of the swelling may be watched. Great care should be exercised in applying the bandages that the circulation be not interfered with. I have observed that in injuries due to wrenching or hyper-extension the application of hot fomentations gives the greatest relief, while in the case of a bruise or blow when the site of injury could be determined the early application of ice has proved beneficial.

Just as soon as the swelling has reached its maximum, usually in four or five days, an extension apparatus should be applied. This should not be delayed, for two reasons: (1) on account of the tendency to ligamentous contraction, and (2) to prevent erosion of the joint surfaces. The extension gradually straightens the limb and gives great comfort to the patient, and should be kept on for two or three weeks after the disappearance of the fluid, when the weight may be gradually decreased and in another week entirely removed. A modified Thomas knee-splint is now applied, the joint being bandaged

with flannel and a posterior bed splint worn at night in order to resist the tendency to flexion. The Thomas splint should be worn until the tenderness has disappeared, usually from six to twelve weeks, or even longer, according to the severity of the case. When the flannel bandage is removed an elastic knee support should be substituted and worn continuously.

In cases that have reached the stage of deformity with ankylosis, nothing, unfortunately, can be done. General tonic treatment, good food and plenty of fresh air should, of course, not be neglected. If it be possible for the patient to live in a dry climate, it will be to his advantage.

Fortunately this disease is comparatively rare, at least in this country, as compared with Europe, but with the increase of population and immigration it will become much more common here in a very few years. There is only one remedy, and that is for the female members of hemophilic families, as well as those afflicted with the disease, not to marry. Fagge reports that in 1859 the female members of two hemophilic families in which the disease had existed for over a century resolved not to marry, and in 1879, twenty years later, there were no new cases. Afflicted families should be educated along these lines. They are directly concerned and the cure is in their own hands.

## PULMONARY TUBERCULOSIS.

BY JOHN V. SHOEMAKER, M.D.

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*Gentlemen*,—The subject for consideration this morning is suffering from a disease common to persons between the ages of twenty and thirty years. In order that you may properly understand this case, we will give you a full account of his history.

He is twenty years old; nativity, American; occupation, clerk.

*Family History*—His father died of tuberculosis at the age of twenty-eight, while his mother died of the same disease at the age of twenty-two. He has no knowledge of his grandparents since he has been living with his aunt, as far back as he can remember. He has no sisters and no brothers.

*Previous Personal History*—Patient, when a child, had some of the common diseases of childhood. He had whooping cough at the age of ten and measles at the age of twelve. Otherwise he was healthy. He never had diphtheria or any other acute contagious disease.

*Present Illness*—The onset of this disease in this patient was by no means uniform. About three months ago he contracted a slight hacking cough while being exposed to a slight draught. This cough persisted for some time in spite of treatment. He states that this cough was worse in the morning as compared with his cough in the evening. This cough was followed by fever, which abated, but it soon returned again, and he also complains of a pain in his side. Soon there was evident emaciation, followed by a gradual loss in weight and hemorrhage from the lungs made its appearance. Sometimes this hemorrhage lasted one or two days, and considerable quantities of blood were ejected. He was compelled to expectorate quite freely and the expectoration was mucoid at first, but it soon became rusty-colored. Upon examination this sputum contained tubercle bacilli. One of the most prominent symptoms of the respiratory tract is dyspnea. When this dyspnea becomes pronounced his respirations become rapid and his face assumes a pronounced cyanotic color. He complains of shortness of breath upon the slightest exertion.



At the present time, in addition to the symptoms mentioned, he has a fever which ranges between 103 F. and 104 F., and sweats excessively at night. His countenance is dusky; the pulse is of good volume and regular rhythm, but it has a very low tension.

*Physical Signs*—Upon physical examination we find that he is emaciated, shown especially by the hollow cheeks and temples, pinched nose and thin hands. His clavicles are very prominent and there is a diminished expansion in the right infra-clavicular space as compared with the other side. The heart beat is slightly accelerated and the respirations are more frequent than normally.

The face is flushed and the superficial veins over the upper part of the right lung are marked, due to the obstructed circulation and the emaciation. Upon palpation, the skin is hot and dry and the vocal fremitus is increased. Dulness on percussion is positive and easily elicited. To auscultation there is increased vocal resonance, breathing more harsh and a prolongation of the expiratory murmur.

The expectoration is tinged with blood and has not an offensive odor. Under the microscope the expectoration contains chiefly pus corpuscles, epithelial cells, tubercle bacilli, elastic tissue from the alveolar epithelium and fat globules.

*Diagnosis*—From the presence of tubercle bacilli in his sputum, physical signs and symptoms, we can undoubtedly diagnose this case as that of incipient pulmonary tuberculosis. Other symptoms of great diagnostic value are fever, hacking cough, expectoration, progressive emaciation and the dulness on percussion.

To give you a clear insight of this disease, permit me to refresh your memory on the pathology of this affection.

*Pathology*—Tuberculosis is characterized by the eruption of small nodules varying in size from one or two millimeters to that of a small pea. These are known as miliary tubercles, which is the beginning of all tubercular deposits. It is itself a compound, being composed of smaller submiliary tubercles, of which from ten to fifty unite to form a miliary tubercle. They are of a transparent, gray color, and are especially characterized by evascularity.

When the tubercle bacillus first enters the tissue, the first effect is to stimulate or irritate the fixed connective tissue elements and endothelial cells and cause a proliferation of round cells, which resemble in their abundance of protoplasm the epithelial cells, and are therefore known as epitheloid cells.

These epithelioid cells assume various shapes, chiefly rounded and polygonal. They have a vesicular nucleus and in their interiors are found varying numbers of tubercle bacilli. The wandering leucocytes flow from the adjacent vessels and form the lymphoid cells, which constitute the bulk of the tubercle. Soon giant cells appear which arise from the fusion of individual cells and from the epithelioid cells. These giant cells commonly contain twenty to forty nuclei arranged at the periphery of the cell. The tubercle bacilli are also present in these large cells, but they are scanty. It has been asserted that the giant cell is a living defensive agent and they display phagocytic action.

After these tubercles have attained their full size, they invariably undergo degenerative changes: 1. Caseation. 2. Sclerosis.

The degenerative changes which take place are hyaline degeneration, coagulation necrosis, fatty change, and eventually a transformation into a cheesy material, the so-called caseous necrosis. These changes occur from the vascular condition of the tissue and from the specific action of the tubercle bacillus. First, the protoplasm of the cell becomes granular and opaque, and this is followed by a complete disintegration of the entire cell. The cells usually begin at the centre to display the necrotic changes. Their outline becomes less distinct, and as the necrotic process advances the cells break down into small particles or debris. The giant cells also undergo similar changes. Finally, the tubercle undergoes complete necrosis and is transformed into a cheesy mass, which frequently undergoes softening.

More rarely caseated tubercles become infiltrated with lime salts and undergo a calcareous change, which change happens rarely in the lungs, but is especially prone to occur in the lymphatic glands.

The surrounding connective tissue shows proliferative changes, which may eventually cause encapsulation of the tubercle. Such masses remain indefinitely and are practically harmless.

Finally, a tubercle may undergo a fibroid change and the tubercle is transformed into fibroid tissue. This fibroid change in its completest development is observed in tuberculosis of the serous membranes, especially the peritoneum.

When the tissue forms a favorable soil for the tubercle bacillus, secondary tubercles make their appearance in the adjacent organs. This dissemination of the tubercles is effected

principally through the blood vessels, lymph channels, and also by the phagocytic leucocytes. Through the lymphatic system tuberculosis spreads to the lymphatic glands, and thence to the adjacent serous membranes. Tuberculosis also spreads by contiguity.

The tubercles tend to coalesce, forming larger tubercular masses, and sometimes distinct tubercular tumors are produced. The condition which results from general infection and formation of tubercles in various situations is known as miliary tuberculosis. In such cases the progress is very rapid and death is not long delayed. Besides the tubercle, there are inflammatory lesions occurring between the tubercles and varying with the anatomic character of the organ affected. These inflammatory changes in the lungs may show changes similar to those of catarrhal or croupous pneumonia. In other instances an overgrowth of interstitial tissue ensues. Sometimes it is excessive and results in the so-called fibroid phthisis.

Associated with tuberculosis there are constitutional features which are dependent chiefly upon secondary infection, such as the streptococci. It is held by some that tuberculosis is also capable of exciting suppuration in the absence of other pus-producing organisms.

The favorable seats of tuberculosis are lungs, liver, kidneys, spleen, intestinal canal, brain, bones and joints. The salivary glands and pancreas are least frequently involved.

*Etiology*—Tuberculosis is caused by the tubercle bacillus, which was discovered by Koch, in 1881. This bacillus is a slender, rod-shaped, straight, somewhat bent bacillus, and is non-motile and non-sporogenous. The best culture media for the bacillus is blood serum previously coagulated by heating. From the cultures of this bacillus a nuclear proteid and a ptomain have been isolated. When stained it may appear uniformly colored or may present a beaded appearance.

The tubercle bacillus is found in man and in cattle, but they exhibit structural and cultural differences, though they are probably the same bacillus exhibiting different characteristics, caused by their growth in different environments. However, the bovine bacillus possesses greater virulence.

The bacillus of tuberculosis is probably always present in the atmosphere, being derived from the drying and pulverization of the expectorated sputum from tubercular patients. They are also found in the lesions of all parts of the body. Their vitality outside of the body is extraordinary, having great resisting powers. However, multiplication of the organism



rarely occurs outside of the body. The constitutional features of the disease may be ascribed, in part, to the circulation of the poisons produced by the tubercle bacilli in the blood, but principally to the pus-producing organisms.

*Modes of Infection*—The bacilli may gain access to the body:

1. By inhalation.
2. By swallowing.
3. By direct inoculation.
4. By direct hereditary transmission.

The most common entrance for this bacillus is through the respiratory tract. Although the breath of the patient suffering with tuberculosis does not ordinarily contain the bacilli, nevertheless the rooms in which the patients live contain numerous bacilli in the dry state, and these readily become mixed with the air and are thus inhaled. Hence the greatest frequency of tuberculosis of the lungs and bronchial glands, which is the first tissue open to the approach of the bacilli. It is also possible for this bacillus to enter by the skin, thereby causing lupus vulgaris of the skin. The infection may also take place through slight cutaneous lesions, although this is rare.

Sometimes the bacilli are swallowed with milk or meat, or they may gain access to the mouth in the form of dust or particles of various kinds and be swallowed with the saliva. It is a well established fact that such contaminated milk may infect the human subject.

In exceptional cases the bacillus is found in the fetus *in utero*. It is transferred from the mother to the offspring through the placenta. Some authorities state that the few bacilli which are transferred to the fetus and child may later cause active infection.

*Predisposing Causes*—

1. Race and nationality.
2. Hereditary predisposition.
3. Previous infectious diseases.
4. Age.
5. Sex.
6. Climate and soil.

*Local Causes*—

1. Occupation.
2. Bronchial catarrh.
3. Tubercular pneumonia.
4. Hemoptysis.
5. Pleurisy.

6. Intrathoracic tumor.

7. Congenital or acquired contraction of the orifice of the pulmonary artery.

8. Trauma.

No race is exempt from this disease, but the negroes and Indians are especially predisposed to it. The Russian Polish Jews are remarkably exempt, and next to them are the native American whites.

Children born of tuberculous parents and persons living in the infected house are very liable to become affected.

Persons having catarrhal affections, especially of the respiratory organs, are prone to this disease. Many infectious diseases form a good tissue soil by diminishing the vitality and thus favoring the growth of the tubercle bacillus. Cases are reported where tuberculosis has developed after the acute and infectious diseases, such as influenza, measles, whooping cough, typhoid fever, cirrhosis of the lungs, and diabetes mellitus.

The susceptible period of pulmonary tuberculosis begins between twenty to thirty-five years, and it may also occur at any age. Meningeal, mesenteric and lymphatic tuberculosis are especially common in children.

Females are more predisposed than males, because they are confined indoors more, and during the pregnant stage the progress of the affliction is accelerated.

No climate is exempt from tuberculosis, but the development of the disease is favored in those localities where there are frequent and rapid changes of temperature, and where the soil is damp. It is more common, however, in the temperate and torrid zones than in the frigid zones.

Persons whose occupations necessitate the inhalation of irritating substances are very liable to this disease. Another frequent cause is bronchial catarrh, which prepares a favorable soil for the tubercle bacilli. Some of the other causes, as I have mentioned before, are hemoptysis, pleurisy, intrathoracic tumor and congenital or acquired contraction of the orifice of the pulmonary artery.

Traumatism favors the lodgment of the tubercle bacilli. Injuries to the chest wall are frequently followed by pulmonary tuberculosis. This is particularly seen in the development of tuberculosis of the joints succeeding injury.

In this patient particularly, I believe that he acquired an hereditary diathesis from his parents and that he undoubtedly sooner or later was exposed to the germs and became infected. I believe if this man's environment had been right and he had

taken the proper precautions, he would never have acquired this disease.

*Treatment*—This patient, of course, must make a change in his occupation. He needs the open air and sunlight as well as food and medicine. His age is in his favor for his recovery, and in the course of six months to a year he should be entirely well and his sputum free from the bacillus. His assimilation is at fault, which we must first correct if we wish to obtain results. For this we will give him:

R	Tincturæ nucis vomicæ .....	f ʒss
	Acidi hydrochlorici diluti .....	f ʒvi
	Tincturæ gentianæ compositæ .....	q.s. f ʒiii

Misce. Sigma.—One teaspoonful in a little water a half hour after each meal.

When his digestive organs are in a good condition, we will begin to give him such drugs as will assist in the amelioration of his diseased lungs. Of the many antiseptic expectorants the one most suitable in all of these cases is beechwood creosote, which should be given in ascending doses. It is well to begin with one minim three times daily and increase the dose one minim every second day, until at least ten minims are taken at a dose. Of course medicine alone will not cure these patients. Plenty of good food and fresh air will do more than medicine. However, medication should not be neglected.

At present the weather is cold, hence the patient can take cod-liver oil with less disturbance to the stomach than during the hot summer months. Cod-liver oil will not only serve as an alterative, but at the same time is a valuable food to produce heat and energy in the body. Our aim in all cases of tuberculosis should be to build up the nutrition of the body by giving well-prepared nutritious foods.

Milk and eggs is the preferable diet for consumptives. However, the eggs should be slightly cooked, because most patients cannot digest the uncooked albumin, as is shown by their stools. We will instruct this patient to eat plenty of well-cooked meats and some vegetables, together with his milk and eggs. The more concentrated foods are preferable. Fresh air, with plenty of sunlight, is as essential as food and medicine. The patient should sleep with open windows and spend all day in the open air, regardless of the weather. Of course, when the weather is cold and inclement, the patient must be clad accordingly.



## Selected Articles.

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### THE TEACHING OF HYGIENE IN SCHOOLS.\*

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BY J. FOSTER PALMER, M.R.C.S., L.R.C.P., F.R.HIST.S.,  
ETC.

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*Quis custodiet ipsos custodes?* or, rather, I should say *Quis præcipiet ipsos præceptores?* I am here, it seems, to teach the teachers; teachers who know, perhaps, on some points, certainly in technical matters, more than I do. With others, also perhaps, I may be more familiar. Still, it may be a relief to the tension of your minds to put yourselves occasionally in the position of learners for a time, even if you gain nothing more by it than a little moral support from an outsider. If I were to say that the best method of teaching hygiene in schools is not to teach it at all, you would think I was making an Irish bull, so I will not say so, but leave you to deduce it from my remarks, if you find they bear that construction. Did you ever feel despair? Despair of making any impression on those you teach? Despair of any possible result from sowing good seed on what appears to be absolutely sterile soil? Your pupils' thoughts were evidently far away. Were they? You do not know. You were speaking to human beings at the most receptive age, when the brain is growing and active, when it easily receives impressions and is wont to retain them perhaps through life. I know from experience that they often receive strong and permanent impressions when you least expect it.

The subject before us is a very large one, and I can do no more than give suggestions on certain points, following, partly, in the line of the excellent instructions given by the London County Council, with which, no doubt, you are perfectly familiar.

(1) The importance of ventilation, especially for children, I need not dwell on. It has been so impressed on us that it has become a fashion, a vogue, like baths. We all know that expired air contains 4 per cent. of carbonic acid, and how long it would take to fill a room with such air. We know, too, the effect of plants in purifying the air (in the day time). With

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\* Given to a branch of the "Teachers' Guild of Great Britain and Ireland," at the Froebel Institute, on November 12th, 1908.

regard to open windows, as Byron would say, "I know we're crammed with the best doctrines till we quite o'erflow." The open-air treatment of all things in general and consumption in particular, we have at our fingers' ends. I can only touch on this point. In fact, ventilation is so much "in the air" that you will have little need to teach it. The rising generation can hardly escape this branch of education.

(2) There are moral as well as physical foes of hygiene and sources of hygiene. Of course I must not speak of "sin." That would be unscientific. Besides, it would be poaching on the preserves of the parsons. I am aware that now, even among them, *i.e.*, those of the "higher critic" type, there is no such thing as "sin." It is now the "contrariant influence of evil," a distinction without a difference, as I conceive it. But that I pass over. I prefer the old word, though I do not use it. I call it "perverted mental and moral energy," but it means just the same, only sometimes it consists in the absence of "moral energy," or any other energy, altogether. Negative evil, however, leads to positive. Sloth is a negative evil, but it results in very positive evils in the form of dirt, overcrowding, and starvation—all potent allies of disease. Where there is dirt there is concentration of microbes. Where there is overcrowding this concentration is still further increased, and the crowded ones are more susceptible. Where there is also starvation this susceptibility has reached its climax. Sloth leads to ignorance and the neglect of all sanitary precautions and the defiance of nature's laws. It is the direct cause of conditions of ill-health, or what we call auto-intoxication, and the indirect cause of licentiousness and intemperance—all potent causes of susceptibility to disease. If, therefore, by precept and example, you can exorcise this evil demon, you will have taught one of the first and most important lessons in the practice of hygiene. For the essential mode of protection against disease is not the running away from real or imaginary microbes, but maintaining a sound standard of individual health. It is our own resisting power that we must cultivate, *mens sana in corpore sano*. Pathogenic microbes, as a rule, do not flourish in a perfectly healthy organism, and, independent of its accessory advantages, such as personal cleanliness and sanitary intelligence, activity of mind and body is the first essential to such a condition. But body first. Children, I believe, go to school far too young. The undeveloped brain is roused into artificial activity at the expense of nerve stability and physical soundness (often of brain power, too) for the rest of life. Physical

training and the acquisition of physical stamina must come first. But when the mind and body are fully developed, then activity of both is essential. And of mind chiefly. Mental activity is the most important, will last the longest, and is, in the long run, the most sanitary. Physical activity is, after all, chiefly useful as a training for mental. We want the sound body, more especially that we may be able to use the sound mind. I must quote on this subject a great observer of boys and men, the late High Master of St. Paul's School. "I do not hesitate to say," he says, "that if two boys start life together equally sound in constitution, and circumstances lead one to choose an open-air career of muscular exertion, and the other the life of the study and the cultivation of the brain, the student has the better chance of health and long life." This, too, you see, is in spite of disadvantages in the matter of pure air, etc. The red-faced, muscular, fox-hunting squire is a reversion to an earlier and lower type, and is further from the ideally healthy type than the pale student and brain-worker. Meanwhile we should get along much faster if we were to recognize the fact that, in nine cases out of ten, the theologian and the scientist are just saying the same thing in different words, and then quarrelling about it instead of working together. The former speaks of "sin," while the latter discusses "perverted mental and moral energy," both referring to the same psychical condition. The priest denounces "sins of omission," while the doctor denounces "sloth," both meaning the same "Original sin!" "Oh, no! there is no such thing," says the scientist, with an air of superiority; "it is an exploded myth." But call it "Hereditary evil tendencies," and he will cease to deny its existence; while the difference between what the theologian calls "Temptations of the devil" and what the scientist calls "Personal or acquired evil tendencies" requires for its perception a more potent mental microscope than has yet been discovered. For, of course, the old-world dispute about the devil and demoniacal influence is entirely verbal and utterly futile. We know that evil exists, and that we must oppose its influence, but to know whence it arises is no help in guiding our conduct. We are constantly told that the devil is dead. If it be so, it is well to remember that his business is still being carried on; that, as tersely stated by a recent writer, it has been turned into an unlimited company, with increased powers and capital.

(3) The next subject on the syllabus is teeth. This seems rather a bathos after climbing to metaphysical heights: but even they have a moral bearing. Teeth, I consider—i.e.,



carious teeth—are a product of civilization, and partly, I think, of brain activity. Savage races, as a rule, have perfect teeth. Some will tell you it is our artificial methods of feeding. Not entirely, I think: the latter is partly a necessity owing to defective teeth. I doubt if perfect teeth are, generally speaking, consistent with active and highly developed brains. As a result of some forty years' personal experience, I know that in my own case a decaying tooth is usually the sequel of any special mental effort. Meanwhile we have, most of us, defective teeth, and we must do our best to preserve them. Future generations may be born without teeth, and have to live on bread and milk, but that time has not yet come. Carious teeth are manufacturing splendid material for the cultivation of pathogenic microbes, and should be attended to at the earliest moment. But prevention is better, when possible, and much may be done by care and cleanness (not, I may say, in the sense in which the word is used by the old Hebrew prophets, where "cleanness of teeth" is a kind of euphemism for *starvation*.)

(4) The anti-hygienic effect of drink you will hardly need to teach your pupils. They have probably seen it themselves. Temperance, like ventilation, is in the air. They have heard about it. By consistent example you can, however, intensify the impressions made. But there are worse evils than drunkenness. An English bishop once said, "I would rather see England free than sober." I can hardly endorse this. Indeed, I would not. But, if the choice arose, I know that I would rather see England "pure" than "sober." And I am equally sure that I would rather see England "honest" than "sober." I said, some 20 years ago, that if drink had slain its thousands, licentiousness had slain its tens of thousands, and I see the Bishop of London has lately quoted the remark. Apart from visible consequences in special diseases, it has a more depressing effect on the human organism, and renders it more readily a prey to disease. This is a fact which may surely be impressed on the young without going into unnecessary details. Shakespeare gives both as the great shorteners of life in his account of a healthy old age:

For in my youth I never did apply  
Hot and rebellious liquors in my blood ;  
Nor did not, with unbashful forehead, woo  
The means of weakness and debility.

The Jews are a survival of the fittest. They are still, mentally and physically, the finest race on earth. And there can be no doubt that their superior vitality and longevity are the result

of their greater purity than the surrounding nations, and their long training under the religious and hygienic code established by Moses.

(5) One practical conclusion, I think, is this. If we want a strong, healthy, and intellectual race we must have religious teaching in all our schools. I have pointed out its bearing on hygiene. But children will often listen to and follow dogmatic instruction when they will not understand, or will not attend to, vague scientific generalizations. To take one example only. If children were all trained by their teachers to acquire habits of strict honesty (not because honesty is the best policy, not as a matter of expediency, not for long drawn-out scientific reasons, but as a stern, inflexible moral duty) many of our sanitary difficulties would vanish into thin air. For example, if men did their duty honestly to their employers we should have no defective drains. If vendors were honest, milk would not be adulterated with contaminated water, and would not be supplied from tuberculous cows. The test for tubercle is perfectly easy, and but for the lack of this plain moral duty bovine tuberculosis might be exterminated throughout the country. If landlords, builders, and workmen all agreed to do their duty honestly there would be no damp, unhealthy, ill-built, and ill-ventilated houses. "A king," Burns says, "cannot mak' an honest man"; that is "aboon his might"; but a teacher can do much towards cultivating the material for one.

(6) But we must come down from the clouds again, and teach children to wash their hands. Moses taught this as a religious duty. You will say, of course, that it was the only way of teaching anything to a nation in an early stage of moral and intellectual development. Hygienic principles would be unintelligible to them, so he commanded them simply to wash their hands before meals, and they did so. He did not trouble them with complicated scientific reasons. And remember that children are much in the same position. They are individually what the Hebrews were nationally, in a low state of development. Men, like nations, do not spring into full perfection ready-made. It is "line upon line, precept upon precept; here a little, and there a little"; or, to use the more modern and high-sounding words of Browning, we cannot hope to dispense—

With infancy's probation, straight begin

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To stand full-statured in magnificence.

If this one habit of hand-washing were acquired we should not hear very much of lead-poisoning. If you were to see the

hands of men working in potteries and at painting houses, you would not wonder at their being poisoned if they eat their meals (as they constantly do) without washing them. Why do you and I wash our hands before meals? Not as a religious duty. Not, speaking generally, because we are afraid of swallowing certain poisonous microbes. We don't go through that process of reasoning every time. We do it simply because we should not feel comfortable without; in other words, because we have acquired a habit, a habit we were taught in our youth (it matters not how, but certainly not on scientific grounds, most of us), a habit which the lead-workers, the working painters and potters, have not been taught. Habits, mental, moral, and physical, acquired during the educational period are usually, if well established, retained through life. "The object of all education," Bacon says, "is to obtain good customs." This is all that schools are good for. Habit formation is their sole *raison d'être*. Habit is an essential part of our growth, or, in the sesquipedalian language of our modern scientists, "of the ontogenetic development of the human unit." "Habit," Dr. Darwin says, "is the capacity, acquired by repetition, of reacting to a fraction of the original environment." This means just the same as Bacon's statement, that custom is stronger than intention. I prefer Bacon. Indeed, Bacon's aphorism as to the object of education sums up the whole matter, and is of more real value than all the wordy rhetoric of Herbert Spencer put together. Spencer judged other minds by his own. He found that in his own case a principle was of more value as a guide than a rule. I believe a more extended experience would show the opposite to be more often the case. I know it is "a perilous shot out of an elder-gun that a poor and private displeasure can do against" so great "a monarch" of literature as Herbert Spencer. But I have had two advantages that Spencer had not, a scientific training and a large family of children. Spencer's philosophical conclusions are often stultified by the lack of a sound, scientific basis, and his theories of education are often similarly defective for want of constant observation and personal contact with a growing family.

(7) Consumption (tuberculosis) destroys about one-tenth of the inhabitants of these islands. Besides this, I am convinced, from the examination of *post-mortem* records, that nearly half the population of the country is attacked sooner or later by his disease. To put it more plainly, the chances are almost even that you and I either have, or have had, or will have, consumption in one of its forms. This statement, al-



though it sounds appalling, is, in another point of view, rather encouraging, for it points to a large percentage of recoveries. That is to say, if the incidence of tubercle is, as I believe it to be, about 40 per cent., and the death-rate 10 per cent., this means 30 per cent. of recoveries. The incidence of consumption, it is true, is lessening; but it still carries off more than all the acute infectious diseases put together. Its magnitude, therefore, makes it a subject of intense importance in relation to hygiene, which consists, essentially, in the prevention of diseased conditions. I have no wish, as I have no need, to be an alarmist, for I should say that tuberclephobia is about the most prevalent disease of the day. But prevention is better than cure; and, more than this, sensible precaution based on knowledge is better than senseless fear based on ignorance, as it usually is. In the first place, in view of the observations made on human beings and cattle, the hereditary character of tubercle may be practically disregarded. If you catch consumption it is in most cases from the actual expectoration of a consumptive patient, and, generally speaking, when it becomes dry. It is not taken from his breath except during an actual fit of coughing, and that is unlikely. Expectoration, therefore, must be studied like a fine art, or like any other subject of instruction; not only by recognized consumptives, but by all who are suffering from coughs; for in view of the large incidence of tubercle, and the number of recoveries, it is always possible that such coughs may be the result of slight temporary attacks of tubercle. A bacteriological examination is the only certain test. There are only two safe ways of spitting. One is to spit on the fire, the other is to spit on the ground in the open air. In the first case the bacillus is burnt up. In the second, provided there is sufficient space, it is disinfected by the oxygen of the atmosphere, but even this must not be too full of human beings. I am urging, of course, a counsel of perfection, but if a patient spits in his pocket-handkerchief, he ought to put it on the fire the first opportunity. By allowing it to dry he is liable to infect others, and to shorten or destroy his own life. The great thing is not to allow the expectoration to dry, but to burn or disinfect it first. Cheap fibre handkerchiefs are now made for this especial purpose. If a patient spits on the floor—well, he ought to be locked up. Day-light and fresh air are fatal to the bacilli, and, although a patient cannot get this combination actually in his lungs, he can do his best towards it. We have referred to the dangers of over-crowding, of damp and ill-ventilated houses, of contaminated milk,

of breathing foul and dust-laden air, and of accumulations of dirt, sewage, and decomposing material. Breathing through the nostril is an important precautionary factor. The nose is the natural protector of the lungs, and, when obstructed, may usually be relieved by operation. And a consumptive patient in a house should always have a well-ventilated room to himself, with windows open and a fire if necessary, and precautions should be taken to ensure disinfection. But there are personal as well as outside precautions. The bacillus requires a favorable soil for cultivation. People with healthy appetites and wherewith to satisfy them, devoid of fancies, eaters of fat, oil, and butter in good quantity, living regular, active lives, and exceeding in nothing, are not very likely to take consumption. But where there are intemperance, starvation, debility, exhaustion, immoral lives, bad habits of any kind, overcrowding, want of ventilation, irritation of the lungs by the constant inhalation of dust, etc., the bacillus of tubercle will probably find a local habitation and a name. It is not necessary for children to know much about tubercle bacilli. A little knowledge is a dangerous thing. The less they know or think about such things the better. We do not want children to grow up morbid, neurotic, hypochondriacal, valetudinarian tuberculophobes. But they should know that there is such a disease as tubercle; that it affects cattle, and consequently meat and milk, and that it can be readily detected by the tuberculin test; that they may insist, when, later on, they have the power, by their exercise of the franchise, to influence the policy of their rulers, that this test should be compulsorily applied and acted on, for the health of the country largely depends on it.

You have asked for my views: I have given them. You will probably find them unpopular. But I am sure that within twenty years, probably less, they will be accepted by those best able to judge.—*The Medical Magazine.*

## ON THE TREATMENT OF SYPHILIS.

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BY MEDICAL COUNCILLOR W. WECHSELMANN, M.D.,  
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Berlin.

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For many years the investigation of syphilis has been unproductive of results, but the last few years have witnessed a large measure of very important progress. By the discovery of the *Spirochaeta pallida*, and by experimental investigation, the nature of syphilis has been elucidated in the most varied directions, and it appears that even the finer effects on the system have been brought more within our comprehension by the sero-diagnostic method of "complement separation." It is natural, therefore, that at the present time we should endeavor to give a scientific explanation of the therapy, which has hitherto rested upon a purely empiric basis. All endeavors, however, to produce, in accordance with modern theories, a scientifically established therapy by the incorporation of toxin or vaccine with syphilitic serum, have afforded no certain results either in the sense of immunization or cure. Perhaps success will only be attained in this direction, when cultivation of the *causâ causans* of syphilis has been successfully accomplished.

If now we must have recourse to the time-honored method of treating syphilis by mercury and iodine, the mode of administration has been placed on a sure foundation by scientific investigation, just as practice has been enriched by newer methods and preparations. Various investigations seem to prove that mercury acts directly, injuriously or destructively, on the syphilitic virus; because Neisser was able to diminish the eruption of the disease in apes inoculated with syphilis, if, simultaneously with, or soon after the inoculation experiment, he introduced mercury into the animal. Atoxyl seems also to be able to act in the same way, but its employment in man is only permissible in rare cases, as the doses needful for this purpose are so high, that there is a certain danger of intoxication, especially for the bowel, kidney and optic nerves, associated with such large doses. Moreover, it is certain that the action of atoxyl on the usual manifestations of syphilis does not approach in efficacy the action of mercury, and, of course, the effect of atoxyl on the later stages of the disease is still quite unknown. Iodine appears to act on the tissues really in



the sense of an absorbing agent, and only slightly on the virus of syphilis. Thus, mercury is particularly useful, as is well known, as a remedial agency in the early infectious severe lesions of syphilis, while iodine finds its special rôle in the later gummatous stages. But, as the presence of small numbers of spirochetes in gummata, and even the infectious character of the latter, have been established by recent researches, the use of mercury in the tertiary stage of syphilis, which was formerly rather objected to by some clinicians, is justified, and particularly in association with iodine, seeing that "mixed treatment" has afforded excellent results in cases where the use of one or other of the two drugs by itself has not been attended with success.

It is a matter of common knowledge that mercury can be introduced into the body in the most diverse ways, but there are apparently real distinctions to be drawn both with respect to action and toxicity. While, for example, the use of soluble salts and internal administration in general overcomes a special idiosyncrasy, and is at the same time comparatively free from danger, it is also weak in action, while the injection of insoluble salts is attended by a much more energetic healing effect, though at the same time it appears to cause with far greater frequency severe toxic symptoms and unexpectedly fatal results, even when handled with the greatest care and exactitude. Resembling these salts in potency, but, when correctly employed, less dangerous, is the time-honored and reliable inunction method.

Seeing that the thorough treatment of the first appearance of syphilis is of momentous importance for the whole future course of the disease, a six weeks' inunction treatment of 3 to 5 grammes ung. hydrarg. is recommended in the first instance, while in the milder recurrences thirty inunctions suffice. During this procedure part of the mercury is taken up into the system by inhalation—for which reason patients ought to rest in a warm bed after the inunction—and another part is taken up and absorbed by the skin, thereby meeting with and acting upon the spirochetes lodging in the skin, and promptly rendering them *hors de combat*. In this respect lies the chief advantage of the inunction method. When on account of the presence of many sores on the skin, or from other reasons, a disproportionately large amount of mercury would be taken up and a liability to poisoning induced, the inunction method is inapplicable. In such cases the injection of the insoluble mercury salts, especially for early treatment, is indicated. The

most suitable salts for use, on account of their slight degree of smarting, are mercury salicylate and thymolacet, which act energetically when injected in doses of 1 decigramme every eighth day. The still more vigorous grey oil produces with greater readiness painful infiltrations and a greater tendency to toxicity, so that its use is reserved for the rarer cases, which resist ordinary treatment. As suitable suspension media, sterilized liquid paraffin or olive oil can be employed, or the more recently introduced vasenol, which is in itself of a very uniform consistency, and therefore permits of a more exact dosage for each individual injection, than is the case with other media. Vasenol is placed on the market in a very convenient spherical flask, in which there does not remain, after shaking up, even an insignificant amount of the salt clinging to the sides and bottom of the receptacle. Paraffin or fat emboli of the lung do not occur if the injections are made into the upper and outer quadrant of the buttock, where few veins course, and care must be taken to prevent blood flowing out of the needle when introduced. Soluble salts and internal administration of mercury salts are only suitable for the milder appearances of syphilis or for intermittent treatment. The most useful form is 1 per cent. solution of hydrarg. perchlor. with salt solution, giving a Pravaz syringe-ful daily for one month. But many patients find this intolerably painful, and for them we recommend Hirsch's solution of 1 per cent. mercury oxycyanat. solution with acoin.

As internal remedies, hydrarg. oxydrat. tannat. (0.1 gramme thrice daily in pill form) or hydrarg. iod. flav. (0.01 gramme to 0.02 gramme thrice daily in pill form), with addition of opium, is to be recommended; and more recently inergal (hydrarg. cholate with tannin albuminate), in doses of three to six capsules daily. The last-mentioned remedy appears to have no disagreeable by-effects, especially on the alimentary canal, and colic, renal irritation or debility do not occur, even when the preparation is continuously administered over a prolonged period. It might be recommended as a mildly acting antisypilitic remedy, particularly in the slight manifestations, where vigorous treatment does not appear essential. Recent experience is much in its favor.

While these methods suffice for the majority of cases, calomel in six to eight injections of 0.1 gramme, is the sovereign remedy in those malignant cases of syphilis which tend to cause rapidly destructive lesions and resist the ordinary modes of treatment. And in these severe cases one must take the risk

of the toxicity of the drug. If this is not borne well, then we sometimes are surprisingly successful with Zittmann's decoction; the patient takes 300 to 500 grammes of the warm decoct. fortius on an empty stomach each morning and a similar amount of the cold decoct. medium in the afternoon. In particular instances of these desponding cases we have seen certain advantage from atoxyl, in so far as it has induced a marked raising of the patient's well-being and body-weight, and has increased his power of resistance, so that he could tolerate a course of mercury treatment, which previously he could not endure. Of the disagreeable iodine salts, potassium iodide and sodium iodide, we may give three to four teaspoonfuls daily of a 3 to 5 to 10 per cent. solution. If it is desired to establish quickly in the patient an "iodine depôt" which will act for a longer time, then the preferable drug is iodipin. We inject for several days 10 to 20 grammes of warmed 25 per cent. iodipin under the skin of the back or nates. In this way a depôt of iodine is placed in the body, and a continuous iodine action is rendered possible without the appearance of any signs of iodism.—*Folia Therapeutica.*



## Editorials

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### RADIUM IN SURGERY.

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Probably the most important question of the day in surgery is the healing virtue of radium. In an interesting article on the subject, which appeared in the *British Medical Journal*, Sir Frederick Treves makes the following statements:

"Radium will cure every form of naevus, including the port wine stain. It can rid a patient of a pigmented mole or a hairy mole, two troubles practically incurable if the size be beyond certain limits.

"Radium immediately cures, and apparently permanently cures, itching associated with chronic eczema, etc., when placed on the surface on a piece of varnished silk.

"Radium can cause keloid to vanish, whether the keloid be left by wound or by tuberculous glands, or whether it be the obstinate acne keloid.

"Radium will cure rodent ulcers, which have existed for many years, in which there is ulceration, which Finsen light, X-rays and cataphoresis have all failed to cure.

"Radium cures in many instances ulcerating epithelioma of the tongue and lip."

These statements are made from a study of cases in the Paris Institute, the patients being under the care of Dr. Louis Wickham. We quote them, not because they are new, but simply as fresh proof of the great value of the magnificent work that is being done by Dr. Louis Wickham. THE CANADIAN PRACTITIONER AND REVIEW has endeavored to impress the profession of Canada with the vast importance of radium in the cure of the diseases mentioned by Treves, but the receptivity of our surgeons has been marvelously slow.

Through the courtesy of Dr. Wickham, we published in our September issue, 1907, his very able and interesting article on the "Treatment of Vascular Birth-spots (Angiomata) by Radium," which was communicated to the Academy of Medi-

cine at Paris, October 8th, 1907. In that article he referred especially to the good results of the use of radium in the treatment of cutaneous epithelioma, obstinate eczema, prurigo, nervodermatitis and psoriasis.

Again, in our issue of December, 1908, we published a second article by Dr. Wickham, communicated to the Tenth Medical Congress, Geneva, September 3rd, 1908, in which he gave particulars as to technique, etc. He also referred to the excellent results of the treatment of cancer of the breast by radium.

At a recent meeting of the "League Against Cancer," Paris, Drs. Wickham and Degrais, as well as several others, described some striking cures of cancers. They treated sixty-two patients suffering from cancer in three and a half years, and all but six were cured. They found, however, that in some very deep tumors radium is incapable of producing a cure. (Dr. Louis Wickham is Doctor at Saint Lazare, and ex-Chief of the Clinic of the Faculty at the St. Louis Hospital; Dr. Degrais is Chief of the Laboratory at the St. Louis Hospital.)

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### THE CONSTRUCTIVE CRITIC.

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We are suffering in Canada for the want of the Constructive Critic. His half-brother, the Destructive Critic, is everywhere in evidence, and his voice is loud and long in the land. He is in a condition of deep dissatisfaction with everything, including himself. And he is a useful person. Of such stuff reformers are made. But he is working overtime at present in Canada, and he talks so much that the rest of the family have no chance to join in the national conversation at all. It is supposed that we have some Constructive Critics, but they are not well-developed yet. They are in the stage of incubation, and they need careful attention and a sympathetic nurse. For example, a new man is appointed to office. For one man that can appreciate what he has already done, we have ten

men who can belittle him and get in his way when he wants to work, and even aim brickbats somewhere near his office windows. By and by he does some work. It is published in the press. It's a good piece of work. Who says it is a good piece of work? Nobody. Who knows it is a good piece of work? Everybody. Who suffers because of the lack of constructive criticism of the Report? We all do. And the transplanted Canadians about the world do better where they have gone to, a great many of them, than they would have done at home, just for this reason. The intellectual and scientific atmosphere of Canada is far too destructively critical. Light the fire of good fellowship on every occasion, and let us all sit around it. It will do us good. If any fellow-citizen is striking out on a new line, give him your hand and help him along. Canada for the Canadians, and the Canadians for Canada, but in no narrow sense. Constructive Criticism is generally better than Destructive Criticism.

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### THE CANADIAN MEDICAL ASSOCIATION.

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We are glad to learn that the prospects for the success of the next meeting of the Canadian Medical Association, which will be held in Winnipeg, August 23-4-5, are very bright. The President, Dr. Blanchard, is putting tremendous energy into the work of preparation. He visited Toronto early in February, and saw a great many physicians and surgeons of the city. His request to all was, "Come to Winnipeg, and help to make our meeting a good one." It is very unfortunate that some who would gladly visit Winnipeg have made their arrangements to attend the International Medical Congress at Budapest. However, some of those who intended to go there have changed their minds, and have decided that the Canadian Medical Association Meeting is good enough for this year, and they will attend the Winnipeg meeting.

Dr. Blanchard, after leaving Toronto, went to Montreal, and was received by the profession of that city with much



cordiality. That is to be expected, because upon the whole Montreal has been the strongest supporter of the Association among the cities of Canada from the East to the West.

We are really only describing a very small part of the work which Dr. Blanchard is doing. We are glad to be able to state that the local committees of Winnipeg are doing excellent work. We are informed that the Executive Committee, under the Chairmanship of Dr. Chown (a man known almost as well in the East as in the West), has done much work of a good sort, and expects to stick to it until the afternoon of August 25th next.

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### INTERNATIONAL MEDICAL CONGRESS.

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The two committees in Canada and the United States who are making arrangements for the trip to Budapest next August have made various reports. A large proportion of those who go to the Congress will make their own private arrangements as to their routes of going and coming. Some will go by the Mediterranean, some will go first to Great Britain, others will go directly to France or Germany, and then across to Vienna and Budapest. Messrs. Thomas Cook and Son, the well-known touring agents, with headquarters in London, England (local office, 35 Adelaide Street East, Toronto), have arranged certain itineraries. In accordance with one of these, known as Tour "A.," the travellers will leave New York by the North German Lloyd S.S. *Bremen*, August 12th, for Cherbourg, and thence by special train to Paris. After spending four days in Paris, one in Munich and one in Vienna, they will reach Budapest on the evening of August 28th; then, leaving Budapest, September 4th, for Vienna, where three days will be spent, one in Dresden, and three days in Berlin, they will go to Hamburg, and sail from that city, on September 12th, on the Hamburg-American Line S.S. *Bleucher*, arriving in New York Sept. 21st. A tour of forty-one days; fare, \$395. This fare includes first-class travel on ocean steamers, stateroom

berth at \$97 on outward journey, and \$100 on the return; second-class railroad travel on the Continent; accommodation at first-class hotels, and meals as follows: meat breakfast, and table d'hôte lunch and dinner, according to custom of hotel; transfer between railroad stations, steamship piers and hotels; conveyance of 66 lbs. of baggage in Europe, usual allowance on Atlantic steamers; carriage drives for sight-seeing; fees to hotel servants, railroad porters and guards; and the services of a competent conductor from arrival at Cherbourg to departure from Hamburg.

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### A SURGEON'S COURAGE.

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An interesting story comes from France respecting the heroic devotion of a medical student who was assisting a surgeon at an operation for empyema. The particulars as we learn them from the *Toronto World* are somewhat as follows: During the operation a quantity of the pus flew into the eye of the student, M. Louis Bazy. He was aware that only instant disinfection could save him from partial blindness, but there was no one present to replace him, and suspension of the operation meant death to the patient; so he remained steadily at his post. He suffered extremely from pain for seven months, when he was relieved by excision of the affected eye. For this act the student received the Cross of the Legion of Honor. The President is reported to have spoken as follows: "Magnificent, sublime! In my position as Grand Master of the Legion of Honor, I reserve a New Year's Cross for Bazy." "My son only did his duty," said the young man's father, himself a well-known surgeon.

The *World* makes the following comment: "This, fortunately for suffering humanity, is the spirit which characterizes the medical profession generally, and Louis Bazy's act of self-sacrifice will be an ever-inspiring example to all who enter upon this study. The coveted cross was never given for better cause. Far greater than valor on the battlefield is the

quiet heroism of the man who risks certain suffering, an irremediable injury, even death itself, for the benefit of a brother man."

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### NOTES.

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Sir Barrington Simeon has started a movement with the object of providing a County Public Memorial to the late Dr. J. Groves, who was for many years medical officer of the rural district of the Isle of Wight. Dr. Groves was a nephew of the late Mr. Roach, ex-Mayor of Hamilton, and was well known to many physicians of Ontario, and attended the meeting of the British Medical Association in Toronto in 1906.

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Dr. Geo. W. Badgerow, formerly of Toronto, has been appointed Surgeon to the Hospital for Diseases of the Throat, Golden Square, London, England. He previously held the post of Resident Medical Officer and Surgical Registrar in this throat hospital, which was founded in 1863, by the late Sir Morell Mackenzie. Dr. Badgerow assures us that he will be pleased to see Canadian students, and give them any information he can in regard to the work in the hospitals of London.

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We have much pleasure in acknowledging the receipt of the first number of the *Saskatchewan Medical Journal*. The primary object is to publish the transactions of the Saskatchewan Medical Association. It has not yet been decided whether it will be continued as a monthly or quarterly, or simply as to the annual transactions. It presents a very neat appearance, and is in all respects an admirable number. Among the papers included is a very excellent one on Acute Septic Peritonitis, by Dr. George Bingham, of Toronto.

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The banquet of the Graduating Class of Medicine in the University of Toronto, February 19th, in the Arlington Hotel, was highly successful and enjoyable. Among the guests, in addition to the Dean and some members of the Faculty, were Hon. Mr. McIntyre, Deputy Speaker of the House of Commons; Dr. T. K. Holmes, of Chatham; Dr. John M. Elder, McGill Medical Faculty, Montreal; Dr. H. T. Williams, Western University Medical Faculty, London; Dr. R. W. Bruce Smith, Inspector of Hospitals for Ontario.



The Academy of Medicine has recently received, through the generosity of Mr. E. B. Osler, an interesting collection of portraits and other engravings, selected by his brother, Dr. William Osler, while in Paris lately. Among them is an engraving of Holbein's celebrated painting, "Henry VIII. granting the charter of the Barbers-Surgeons, London, 1547." The original painting is valued at \$400,000. The engraving of another painting, perhaps better known to the profession, is "Une leçon du Docteur Charcot à la Salpêtrière." There are in the collection many portraits of men whose names are familiar to all students of medicine—Abernethy, Bichat, Lavater, Borelli, Cromel, etc.

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An unusual feature of medical journalism will be presented in the March issue of the *American Journal of Surgery*. The entire original subject matter in this issue will be contributed by New York City surgeons of note, and a number of new operations will be first presented therein. Among the contributors to appear are:

Doctors Howard Lilienthal, James P. Tuttle, James Van Doren Young, Willy Meyer, Albert E. Sellenings, Walter M. Brickner, John A. Hartwell, T. F. Hopkins, James P. Warbasse, H. Beeckman De Latour, S. W. Bandler, and William K. Simpson.

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We are indebted to Dr. Lucy Waite, of Chicago, a member of the Nicholas Senn Club, for a charming little book, entitled, "Gems from the Literary Works of Dr. Nicholas Senn." The following are some of the Gems: Labor's greatest reward is rest. What is rest? Rest for one is toil for another. The laborer requires physical rest. The weary brain must have change of occupation: travel, physical exercises, walking and driving; the solitude of the wilderness, combined with fishing, boating—sports that fatigue the body and rest the brain.

I know of nothing more soothing to a tired brain than the study of the wonderful mysteries revealed by Nature.

The babbling of rivulets, the hum of busy insects, the music in the tree-tops, quiets the excited, irritable nerves better than drugs.

Combined with Science, Medicine is the noblest of all professions; without Science, it is the meanest of all Trades.

Honesty in Medicine, as elsewhere, is the best policy, and will be amply rewarded at the proper time.

Science is an exacting and jealous mistress.

### The French Scientists in Canada.

Prof. Leon Bernard, of Paris, who, with other distinguished physicians, accompanied Prof. Landouzy to Washington, to attend the meeting of the Tuberculosis Congress last fall, has published a most interesting brochure, giving his impressions of the trip and the Congress, from the French point of view. He expresses himself in a complimentary manner regarding the flying visit to Canada as follows: Before touching the soil of the United States, we made a pilgrimage in Canada, and although this tour was out of our direct course to the Washington Congress, we would reproach ourselves if we had passed it by in silence, and it would mark us as being ungrateful had we done so. It would be idle to repeat once more how our race, our people of the different French provinces, with their local accents, are found on the splendid banks of the St Lawrence, but we doctors must proclaim that on British ground we met at Montreal, as well as Quebec, fraternal colleagues educated in French medicines who have founded—thanks to the initiative and tenacity of Dr. Brochu—an association of physicians who speak the French language in North America. That in Toronto, associated with all the grace of English hospitality, we were shown a university admirably arranged and equipped, which cannot help being influenced by its courteous rivalry with the French universities of the two neighboring cities. Everywhere we were received with the same assiduous attention, the same overflowing sympathy, which went beyond us personally, to the nation we represented. This was the purest joy of the trip, to have sometimes felt floating around us the spirit of France.

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Dr. Charles D. Parfitt, who recently severed his connection with the National Sanitarium Association, has entered on private practice in Gravenhurst, and has made arrangements by which his patients will reside at the Minnewaska, under the charge of Mrs. Fournier, who has been for the last ten years Superintendent of Hope Hospital, Fort Wayne, Indiana, and Principal of the Training School for Nurses in the same hospital. Mrs. Fournier is a graduate of Harper Hospital, Detroit, but is a Canadian by birth. Her home is in St. Thomas. Dr. Parfitt is to be congratulated on this excellent arrangement, and the profession will be glad to know of it.

## Personals.

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Dr. John Caven, of Toronto, is enjoying a pleasant holiday in Florida.

After a somewhat extensive tour through the United States, Dr. Bruce Riordan returned to Toronto, February 6th.

Dr. Jas. A. Robertson, of Stratford, sailed from New York for Italy and Egypt, February 27th.

Dr. S. H. Glasgow, of Welland, President of the Ontario Medical Council, has been somewhat seriously ill, and had a great toe amputated, February 14th.

Dr. W. W. Ogden, of Toronto, was seriously ill about the middle of February, from an attack of la grippe. At the time of writing he is said to be recovering.

We wish to draw our readers attention to the two advertisements in this issue offering for sale some valuable surgical instruments and medical library; also a fine doctor's residence in the city.

Dr. Jas. H. Richardson, of Toronto, has resigned his position as Surgeon of the Toronto Jail. He had been surgeon of that institution for more than fifty years. Dr. Richardson was born October 16th, 1823, and is therefore now in his 86th year.

Dr. Geo. M. McLaren, late Resident Surgical Officer, Birmingham Eye Hospital, and Inspector of Ophthalmic Hospitals for the Egyptian Government, desires to announce that he will confine his practice entirely to diseases of the eye, at 129 Bloor Street East, Toronto.

Dr. Wm. Hackney, formerly of Ottawa, was appointed House Surgeon and Surgical Registrar at the Central London Ear, Nose and Throat Hospital, Gray's Inn Road, London. In addition, Dr. Hackney holds the position of Clinical Assistant at the Royal Eye Hospital, Moorefields.

Dr. Wm. T. Parry was appointed Surgeon of the Toronto Jail in the place of Dr. Richardson, resigned. Dr. Parry, after graduating from Victoria University in 1885, went to London, where he received the double qualifications of that city. He has practiced in Toronto since 1887.



## Obituary.

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### JOHN EASTON, M.D.

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Dr. Easton, of Brockville, died of tuberculosis, January 10th, aged 88. He graduated from McGill in 1852, and was engaged in active practice up to a short time before his death. At one time he practised in partnership with the late Senator Dr. Brouse.

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### CHARLES ED. BARNHART, M.B.

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Dr. Charles Barnhart, whose death we announce with deep regret, died at Owen Sound, February 10th, in his 77th year. Dr. Barnhart graduated M.B. from the University of Toronto in 1859, and had been in active practice in Owen Sound for about fifty years. During all these years he was known to his friends as Charlie Barnhart of Owen Sound. He was a genial, kindly and able man, beloved and respected by all who knew him.

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### DR. ARGYLL ROBERTSON.

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According to newspaper reports which have arrived from India, the body of the late Dr. Argyll Robertson was cremated, in accordance with his expressed desire. The ceremony was deeply impressive. The funeral service was read by the Rev. G. F. Stevenson, and the pyre on the banks of the River Gondli was lit by the Makore Sahib of Gondal, himself a medical man, an Edinburgh graduate, and a Fellow of the Royal College of Physicians of Edinburgh. In performing this last tribute of respect to the dead, the Makore Sahib broke through the ancient customs of his race, for it is contrary to all usage for a Hindu Rajah to take part in a funeral procession, or to wear a white or black turban as mourning. Hindus and Mussulmans united in closing their shops out of respect to the deceased, and sent a message of condolence to Mrs. Robertson.—*Medical Press and Circular.*

## Book Reviews.

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WYNTER'S MINOR MEDICINE. By W. E. Wynter, M.D., B.S., F.R.C.P., F.R.C.S., Physician to the Middlesex Hospital, London, and Lecturer on Medicine in the Medical School; Examiner in Medicine and Pharmacy to the Royal College of Physicians. 275 pages. Cloth, \$1.75. D. T. McAinsh & Co., 123 Bay Street, Toronto, Ont.

This new book on the nature, treatment and prevention of the many minor disorders which come under the physician's notice will be received with much satisfaction by the profession.

"In his book on 'Minor Medicine' Dr. W. E. Wynter touches a great deal of fresh ground, and provides the general practitioner with a work of the utmost value in his daily routine."—*British Medical Journal*.

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APPLIED PHYSIOLOGY. By Robert Hutchinson, M.D., F.R.C.P., Physician to London Hospital. Cloth. Pp. 298. Price, \$2. New York: Longmans, Green & Co., 1908.

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SEVEN HUNDRED SURGICAL SUGGESTIONS. Practical Brevities in Surgical Diagnosis and Treatment. By Walter M. Brickner, B.S., M.D., Assistant Adjunct Surgeon, Mount Sinai Hospital, New York, Editor-in-Chief *American Journal of Surgery*; Eli Moschcowitz, A.B., M.D., Assistant Physician, Mount Sinai Hospital Dispensary, New York, and Harold M. Hays, M.A., M.D. Third series. Duodecimo; 153 pages. New York: Surgery Publishing Co., 92 William Street. Price, semi-de-luxe, \$1.00; full library de luxe, ooze leather, gold edges, \$2.25.

This volume is literally "packed full" of useful and valuable information for the general practitioner or surgeon. Written in short, terse epigrammatic paragraphs, it puts its hints up to the eye of the reader in a manner which makes a lasting impression. In its present and enlarged form, it is a gem both as to its contents and as an example of the printer's and bookbinder's art.

Any work which would call for three editions in two years, each larger and better than the previous one, is an indication

of its usefulness and popularity, and "Seven Hundred Surgical Suggestions" surpasses them all. The originality of its contents is in keeping with its elaborate and attractive mechanical make-up, and every doctor should have a copy in his library.

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**BLOOD EXAMINATION IN SURGICAL DIAGNOSIS.** A Practical Study of Its Scope and Technic. By Ira S. Wile, M.D., New York. Duodecimo; 161 pages; 35 illustrations and one double-page colored plate. New York: Surgery Publishing Company, 1908. Cloth, price, \$2.00; oil-cloth, for laboratory use, \$2.50; de luxe, ooze leather, price, \$3.00.

This is a pioneer book in a wide and useful field, especially so as the diagnostic and prognostic value of blood examinations in surgical as well as medical conditions have been definitely established.

Although written especially as a guide in the diagnosis of surgical conditions, the blood findings in "medical" affections are also described seriatim, in order to present the differing data; therefore, the general practitioner will find much that is valuable and new clearly stated in the book.

The classification of anemia is decidedly original. Basing anemias upon a hematological rather than a clinical basis is a marked step in advance. Particularly startling is the casting out of Hodgkin's diseases, but it appears rational.

The chapter dealing with the surgical interpretation of the total leucocyte count and the differential count is absolutely new, both in material and mode of treatment. "The index of bodily resistance and the index of toxic absorption" are far more important in surgery than one would imagine, and this excellent chapter has no counterpart in text-books on hematology. It is the clearest and fullest discussion of the topic that has appeared.

Lacking in hematological dogmatism, it abounds in a surgical conservatism that makes it a safe authority to follow. The consideration of anti-operative, operative and post-operative conditions affecting the blood is logical and well arranged. The book is a splendid example of the printer's art and the book-binder's ability. The typography is clear and attractive, and the marginal notes in red are as neat as they are useful. The double-page colored plate shows six blood pictures, and in addition twenty-nine illustrations of the various types of cells as they appear with the Jenner stain.



**THE SURGERY OF THE EAR.** By Samuel J. Kopetzky, M.D., Attending Otologist, New York City Children's Hospitals and Schools; Attending Otologist to the New York Red Cross Hospital; Assistant Surgeon and Instructor in Operative Surgery of the Ear, Manhattan Eye, Ear and Throat Hospital; Pathologist and Surgeon, New York Throat, Nose and Lung Hospital. Illustrated with sixty-three half-tone and line drawings, eight charts and four colored plates. Published by Rebman Company, 1123 Broadway, New York.

This is a 360 page cloth-bound book, with good large print, excellent drawings and plates, dealing with the treatment of surgical diseases of the ear, and those diseases associated with the ear which usually fall to the lot of the specialist. Each chapter contains brief historical notes of operations, and gives concisely the surgical anatomy of the parts, preceding the description of the surgical treatment, including indications for operation and results. The chapters on the simple and the radical mastoid operation are complete and up-to-date. The author takes up the surgery of the labyrinth, operations on the sinuses and internal jugular vein, the surgery of the facial nerve, and the surgery of the meninges, cerebrum and cerebellum, from the point of view of the specialist. There is quite a long chapter on lumbar puncture. There is at the end of the book an extensive bibliographical reference, and one would find it a useful and up-to-date book on the subject. Price, \$4.00.

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**INTESTINAL AUTO-INTOXICATION.** By A. Combe, M.D., Professor of Clinical Pediatrics at the University of Lausanne (Switzerland); Chief of Clinic for Children's Diseases; President of the Swiss Pediatric Society, together with an appendix on the lactic ferments, with particular reference to their application in intestinal therapeutics, by Albert Fournier, formerly Demonstrator at La Sorbonne, Paris. Only authorized English adaptation, by Wm. Gaynor States, M.D., Clinical Assistant, Rectal and Intestinal Diseases, New York Polyclinic. New York: Rebman Company, 1123 Broadway.

There has been a great deal of nonsense written on auto-intoxication, and the term is now used by loose thinkers to cover up their ignorance of the real condition of the patient.

But Combe has undertaken to show that intestinal auto-intoxication does actually occur, and may be recognized by well-marked symptoms. The work seems to be scientific, and will supply the reader with plenty of food for thought.

Boas, in the Berlin Medical Clinic, No. 39, says that he has never observed a case of what is usually called "spastic obstipation," although he has been on the lookout for fifteen years. He finds spasm of the colon in neurotic persons with healthy bowels; in intestinal disturbances, with either diarrhœa or constipation; in chronic colitis or sigmoiditis, and in carcinoma of the rectum. The spastic condition of the colon frequently accompanies general neurasthenia, occurring at intervals, without any special type of stool. He makes extensive use of oil enemas when relief is not obtained from habitual constipation by first trying dietetic measures. The efficacy of the oil, considered by some to be specific for "spastic obstipation," does not depend at all upon the nature of the obstipation or on the shape of the stools. Oil injections, a diet rich in cellulose, and the sedative action of belladonna, are useful in many cases of habitual constipation, but are not curative. In conclusion, he states that the whole structure of spastic obstipation is built on sinking sand.

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LEHRBUCH DER HEBAMMENKUNST. Von Dr. Bernhard Sigmund Schultze. Wirtl Geheimer Rat, off. ord. Prof. der Geburtshilfe zu Jena, Mitglied der Medizinalkommission des Grossherzogtums Sachsen. Vierzehnte, verbesserte auflage. Mit 103 Abbildungen. Leipzig: Verlag von Wilhelm Englemann, 1908.

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APPLIED SURGICAL ANATOMY. Regionally presented, for the Use of Students and Practitioners of Medicine. By George Woolsey, A.B., M.D., Professor of Anatomy and Clinical Surgery in the Cornell University Medical College; Surgeon to Bellevue Hospital; Associate Surgeon to the Presbyterian Hospital; Fellow of the American Surgical Association and of the New York Academy of Medicine. Second Edition. Enlarged and thoroughly revised, with 200 illustrations, including 59 plates, mostly colored. Lea & Febiger, New York and Philadelphia. 1908.

In the preface to the original issue of this work it was pointed out that the study of anatomy is relieved of much of its difficulty when it is approached on the practical side. Isolated details do not appeal to the faculty of interest, but when they are set forth in their natural relationship, and their practical application is shown, the mind grasps and recollects them with facility. As anatomy is the most basic of all the medical sciences, a working knowledge of its data is indispensable for the study and practice of scientific medicine and surgery. The author has endeavored to embody these principles in this work, and to do it in such a manner as to answer the needs of both students and practitioners.

The plan of this volume has been developed from eighteen years' experience in teaching anatomy. The author believes the form of presentation he has followed to be the best for didactic lectures, and furthermore that descriptive anatomy is most advantageously learned from text-books, and in the dissecting-room. The regional and topographical method of treating applied anatomy is likewise the most convenient for clinical purposes.

It is scarcely necessary to state that in order not to exceed the proper limits of a book designed for clinical and didactic use, a most careful selection has to be made from the vast aggregate of knowledge constituting the modern science of anatomy. If in parts the text may appear quite as much like an anatomical surgery as surgical anatomy, it is because of the author's belief that this is the best way to complete the study of anatomy, and to begin the study of surgery.

The number of excellent works on applied anatomy is large enough to render the exhaustion of an edition of any one a fair presumption of its fitness to survive. An author can respond only in one way, namely, by striving to improve his work in revising it. This effort has been faithfully made in the new edition, and it may impartially be said to excel its predecessor in many particulars. The sections on Cerebral Localization, Craniocerebral Topography, the Abdominal Viscera, or some of the Pelvic Viscera, and on the Spinal Cord have been re-written or largely amplified. Every page has been carefully revised, and its subject-matter elaborated wherever it seemed desirable. The volume has thus been enlarged by about eighty pages, and its illustrations increased by seventy-five engravings. This work is to be greatly commended.



## Selections.

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### Diuretics.

Up to a few years ago two conditions demanded the use of diuretics, i. e., accumulations of fluid within the body in the form of edema, ascites, etc., and renal disease without such edema. At present, diuretics are no longer employed for the latter condition and they are given only with the greatest caution in acute nephritis and pyelonephritis, as the kidneys demand rest like any other inflamed organ. In uncomplicated bacteriuria it is often desirable to wash out the kidneys, in order to remove, as much as possible, the bacteria, and in renal calculi it is decidedly proper to increase the flow of urine. In the majority of instances, however, diuretics will be prescribed to remove pathological accumulations of fluid in the cellular tissue and the serous cavities of the body.

Increased diuresis may be brought about by improving the circulation and by acting upon the kidneys directly. If the heart is stimulated, more blood will flow through the kidneys and more fluid will be removed. Diuretics of this class are especially indicated in primary heart-weakness, but since renal disease is often accompanied by cardiac decompensation, they are usually also of service here. In amyloid disease of the kidneys, pyelonephritis, and hydronephrosis, there frequently is no insufficiency of the heart, and hence these diuretics will do no good. The same may be said of cachectic edema and in uncomplicated effusions into the various cavities owing to tuberculosis or malignant disease.

It was formerly argued that cardiac remedies are dangerous in nephritis, owing to the increase in blood-pressure which follows. It is now known that the danger of apoplexy is very remote, since the blood-pressure will often fall owing to the removal of fluid and toxic products.

The most important drug of this class still is digitalis. It is most frequently employed in powder form or as digalen, which is more rapidly absorbed but also more quickly excreted. Both the fluid-extract of digitalis and the digalen can be used subcutaneously where a more rapid action is desired or where the stomach is to be spared.

The most valuable substitute of digitalis is strophanthus, which also acts rapidly and is rapidly excreted. Five drops of a good tincture correspond to about 2 decigrams of digitalis

powder. When a very quick action is necessary,  $\frac{3}{4}$  milligram of strophanthin may be injected.

After these remedies, the pulse will very often improve, yet the amount of urine remain the same. It may then be necessary to remove the fluid by mechanical means, in order to relieve the pressure upon the venous system. The importance of sufficient sleep cannot be overestimated, since in pathological conditions, more urine is excreted when the patient is asleep than when he is awake.

Most modern diuretics that act directly upon the kidneys, belong to the purin group. They are generally free from direct actions upon the heart; they increase the flow of blood through the kidneys and stimulate particularly the excretion of water and salt. If an increased renal circulation is impossible, owing to severe lesions in the renal vessels and the glomeruli, a diuretic effect will usually not occur.

According to Romberg, the most valuable member of the group is theocin. In order to obviate gastric disturbance, it must be given carefully, as follows: 0.1 Gm. twice a day; if the diuresis is insufficient, 0.2 Gm. twice a day. The administration is continued on alternating days or less often, and if necessary, the dose may be cautiously increased to 0.2 Gm. three to four times a day. Most brilliant results may thus be obtained without after-effects. If necessary, the drug may be given per rectum.

Diuretin is perhaps the best known diuretic, but is not so potent. Large doses (1 Gm. three to four times daily) can be given only for short periods; smaller ones (0.5 Gm. three to four times daily) for a longer time.

Pure caffeine is much weaker in action and is only rarely employed. Agurin closely resembles diuretin and is given in the same dose.

The various vegetable diuretics are only rarely used at the present time, as they are much inferior to the purin derivatives. Among them are *baccæ guniperi*, *herba equiseti*, *radix ononidis*, *asparagus*, and *folia betulæ*. A dialyzed preparation of the diuretic tea, official in the German Pharmacopœia, is frequently employed with good results abroad, even where theocin has failed.

Calomel and sodium salicylate are good diuretics, but frequently injure the renal epithelium. The epithelial desquamation following the use of sodium salicylate and its derivatives, such as aspirin, is usually, however, of short duration, even where the medication is continued.

The general management of the cases often calls for a combination of several diuretics, usually digitalis with one of the members of the purin group. The amount of fluid given the patient should be restricted to  $1\frac{1}{2}$  to 2 quarts in twenty-four hours. The salt in the food should be reduced in hydropic and uremic renal disease, but not to such an extent that the appetite suffers. Excellent results with salt-free diet have also been observed in ascites due to peritoneal tuberculosis.—*Merck's Archives.*

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### Serum Reaction of Syphilis.

During recent times the clinical value of the Wassermann-Neisser-Bruck reaction in syphilis has been shown to be considerable, and it was therefore of importance when Much and Eichelberg reported early in 1908 that in a series of scarlatina patients, to which they had applied the reaction, complement was deflected in 40 per cent. These authors considered themselves justified in warning clinicians against attaching too great importance on a positive reaction. Buck and L. Cohn (*Berl. klin. Woch.*, December 21st, 1908) considered that the clinical value of the reaction would only be lessened by this find, if confirmed, if it could be shown that the scarlatinal reaction persisted after convalescence. Several observers tested the serum of non-syphilitic children during an attack of scarlet fever and obtained negative results. While the authors do not question the correctness of Much and Eichelberg's results, they came to the conclusion that a positive reaction in scarlatina is not the rule but an exception, which is produced by some altered conditions, the nature of which is still unknown. Seligmann and Klopstock accidentally came across an interesting find. They obtained negative results in 13 scarlatina cases. After a longish interval they used the same extract and obtained positive reactions not only with scarlatinal serums but also with the serum of persons who were not suffering from scarlatina or syphilis. The antigen had obviously undergone some change. Others found that different antigens were capable of yielding positive reactions in scarlatina and syphilis. This would suggest that the reaction in scarlet fever is not identical with that in syphilis. In repeating the experiments with various antigens, the authors found that while all the antigens which they used gave uniform positive reaction with syphilitic serum, some scarlatinal serums gave positive reactions with one antigen and negative reactions with the others. It is therefore not correct



to state that the syphilis reaction occurs in scarlatina, since it has been shown that the substance giving rise to complement deflection in scarlatinal serum is not identical with that giving rise to the reaction in syphilitic serum. They therefore claim that the clinical value of the syphilis reaction is not lessened by the find that scarlatinal serums may react positively with one antigen but not with others. Much himself has more recently admitted that this is so.—*British Medical Journal*.

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#### General Anesthesia per Rectum.

I have witnessed this method of narcosis by my colleagues in Boston and New York, at meetings of the Clinical Society of Surgery. There is very little recent literature on this subject. The first foreign reference that I have seen is reviewed in the *Centralblatt f. Chirurgie*, 1907, Vol. XXXIV., p. 152. The contribution is by Vidal, a French surgeon. The principles of the method are as follows: The alimentary tract must be cleaned first by a cathartic and then by an enema of 2 litres of fluid containing 2 gm. (gr. 30) of carbonate of soda. The latter is employed to clear the mucous membrane of fat. Half an hour before the anesthesia morphine is given hypodermically, the patient is placed in the middle Trendelenburg position, and a rectal tube introduced. The ether, forced by bellows into the tube, should pass through an empty flask which rests in a hot-water bath at 39 deg. C., so that the ether vapor is warm. According to Vidal this method is indicated when respiratory complications are threatened. I mention this method because, perhaps, in the development of surgery of the chest it may find larger application, and the mouth can be used entirely for the maintenance of overpressure in the lungs.

That the extreme cyanosis is not necessarily due to any obstruction in the respiratory tract, but to an overdose of the anesthetic, was demonstrated in one of the cases I witnessed. The complication appeared as critical as any I have ever observed in narcosis by ether in the ordinary method. In many operations upon the head and neck it would be very convenient to get rid of the anesthetic paraphernalia in that region, but up to the present time the technique and art of rectal anesthesia have not been sufficiently developed to justify substitution.—*Progressive Medicine*, Dec., 1908.

# The Canadian Practitioner and Review.

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TORONTO, APRIL, 1909.

No. 4

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## Original Communications.

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### NOTES ON A RECENT VISIT TO SURGICAL CLINICS IN GERMANY AND SWITZERLAND.\*

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By ALEXANDER PRIMROSE, M.B., C.M. (EDIN.), M.R.C.S.  
(ENG.)

Associate Professor of Clinical Surgery, University of Toronto;  
Surgeon, Toronto General Hospital.

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During a recent visit to Europe the writer had an opportunity of visiting a number of surgical clinics, both in Germany and Switzerland, and he considered it might be of some interest to the members of the Academy of Medicine to narrate some of his experiences, and to note some comparison of the methods employed in the different hospitals in the countries visited.

At Heidelberg Professor Narath began his clinic in the early morning, as is common in most German hospitals, and conducted it in a large operating theatre, sufficiently commodious to accommodate the entire class, consisting of seventy-five students. The method of instruction was excellent. It was at once evident that the professor was an expert anatomist, as well as a surgeon of ability. He used the blackboard freely with colored chalks, and demonstrated by this means the anatomical details of the case under inspection; thus, in the case of a boy with fracture at the lower end of the humerus, with paralysis of the ulnar nerve, he demonstrated diagrammatically the distribution of the nerve, going into such detail as the osseous and facial attachments of the interossei muscles.

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\* Read before the Academy of Medicine, Toronto.

A further feature of Professor Narath's clinic which appeared to the visitor as admirable, was his method of instructing the class whilst the operation was in progress; for example: He made his assistant do a gastro-enterostomy for obstruction of the pylorus, whilst he, at the same time, demonstrated the steps of the procedure by narrating what was going on, and by demonstrating each step of the operation by means of chalk diagrams upon the blackboard. The professor took no part himself in the operative procedure, but advised from time to time what technique should be employed.

All kinds of cases were brought into the operating theatre: both pus cases and aseptic cases were treated in the same room. Plaster jackets were applied there, and, in addition, dressings were done before the class, and patients were brought in for the purpose of illustrating the subject under discussion in the clinic. A great many of the operations were conducted under local anesthesia, novocain being used for the purpose. Such cases as colotomy, goitre, etc., were operated upon in this manner.

At Freiburg one was interested in visiting the Pathological Institute, where one was kindly received by Professor Aschoff, who visited Toronto two years ago. He has recently published an important contribution to the "Pathology of the Appendix," in which, among other things, he arrives at the conclusion that eighty per cent. of all individuals who have arrived at the 6th or 7th decade show evidence of, at some time, having suffered from appendicitis during lifetime. In his laboratory he has stored away a numerous number of appendices which have been removed during surgical operation, and which he has investigated carefully by histological methods. This collection, along with his autopsy findings, has been utilized for the purpose of arriving at the conclusions embodied in his paper.

Professor Goldmann, in Freiburg, combines the qualities of a well-trained pathologist with those of an expert surgeon, and he continues his pathological researches at the same time as he conducts a large surgical clinic. At present he is much interested in the pathology of cancer, and is working upon the method of invasion of blood vessels by cancerous growths. He showed some beautiful instances of vital stain in mice, and demonstrated, among other things, that in cases of cancer, experimentally induced in mice, the cancer cells absorbed nearly all the pigment injected.

In his surgical clinic, Professor Goldmann uses local anes-



thesia very largely, preceded by an injection of scopolamin two hours previous to the operation. Goldmann has utilized the X-ray very largely in connection with his surgical work, and, among other things, he demonstrated the relationship of the trachea to the goitre, and stated that he has found it of service to observe by this means in what manner the trachea is diverted from the middle line. Occasionally, as the result of such investigations, he has found it better to remove the smaller side of the goitre instead of the larger portion of the growth. Here, as elsewhere in Germany, one found that Freyer's method of performing supra-pubic prostatectomy was in favor; in fact, nowhere did the German surgeons seem to approve of the perineal route, which has recently been abandoned by them for what they invariably call "Freyer's Operation."

In Professor Krönig's clinic in Freiburg, one found an enthusiast in the employment of spinal anesthesia. Stovain is employed for the purpose, and the professor has already operated upon over one thousand cases under this form of anesthesia. He always uses a preliminary injection of scopolamin an hour and a half, and another one hour, before the operation. The apparatus which he used was so constructed that in each case the pressure of the cerebro-spinal fluid was measured at the time of the injection. The writer saw him perform what might be called "A Fantastic Operation."

This was a case of a patient who suffered from dysmenorrhea of unknown origin. She was placed under the anesthetic and by means of the transverse incision above the pubes, the pelvic viscera were exposed. Both ovaries were removed with a segment of the tubes by a V-shaped incision into the broad ligament. A piece of each excised ovary was removed for microscopic examination. The ovaries were then placed in normal saline at the body temperature in a glass jar, and exposed in this for ten minutes to the influence of the X-ray. They were then brought back, a second piece removed for microscopic examination, and then each ovary was stitched into a pocket formed between the round ligament and the remaining part of the broad ligament. The wound was then closed.

The professor stated that the menopause was not induced by the operation. He also informed me that it was yet too early to state what results would be obtained by the surgical procedure, as it was too soon to come to a conclusion.

The lighting of the operating-room in Professor Krönig's clinic was a feature of some importance. It consisted of an arc lamp erected in the south wall of the theatre, the rays of which passed through ground glass, and impinged upon a mirror which was suspended from the roof of the theatre. The mirror was so positioned that it could be turned at the required

angle to reflect the rays of light directly down upon the field of operation. The light was excellent and under such complete control that perfect light was provided wherever it was required.

Professor Krönig illustrated well the active habits of some of our German colleagues. He rides every morning at six o'clock, and begins his operating at eight.

Professor Kraske, whose name is well known in connection with the operation for excision of the rectum, is the head of a very large hospital clinic, in which he controls no less than three hundred beds. On enquiry regarding his supervision of such a clinic, one was told that a great deal of the work necessarily devolved upon his assistants, and in fact many of the patients were not seen by him. It is interesting to note also that this is the type of hospital which is to be found all over Germany. The hospital is a Government institution, and the surgeon, such as Kraske, receives a small salary (\$1,500) for attendance upon the patients of the hospital clinic. He then receives fees from students, and, in addition, is provided with a private theatre and wards for the treatment of his private patients. It would appear that under such circumstances the head of the clinic does all his surgical work within the walls of the hospital.

One sees from time to time in Germany, even among men well known for their contributions to surgery, work which would not appeal to an advanced surgeon in this country; as an example, the operation of gastro-enterostomy performed by Kraske. After completing the anastomosis, he proceeded to close the abdominal wound. This he did by passing in some three or four aluminum sutures, which extended through the peritoneum and muscles, and were twisted. The length of the incision was about eight inches, and the whole of its superficial portion was left open to granulate without a single suture, gauze being laid in the gap.

In Basel one visited the magnificent hospital operating theatre of Wilm's, the most complete and perfect to be seen anywhere. Here, too, if one might advise the visitor, one would suggest that he should, if possible, gain access to the beautiful private surgical hospital, which has recently been opened in Basel by Professor Haegler, a surgeon of eminence, and who is most thorough in his technique, more particularly in the development of aseptic methods. He has written an interesting monograph on "The Cleansing of the Hands for Surgical Work."

From Basel one journeyed to Berne, in Switzerland, where one of the most eminent surgeons of our time, Professor Kocher, was visited. Here one found a man in his seventieth year doing work which attracts world-wide attention. Although no longer a young man, he still accomplishes a most arduous task. He appears daily in his surgical clinic at eight o'clock in the morning, conducts a clinic before the students for an hour and a half, and then proceeds to his operating-room, where he is engaged until noon or one o'clock. He then goes home to lunch, and, as is the habit in most Swiss and German towns, has his time of relaxation in the middle of the day. He has a large private hospital, and he devotes the latter part of the afternoon to work among his private patients. He then has consulting hours at his house in the evening, and thus from early morning until late at night he is engaged in active professional work. The visitor thoroughly appreciates the fact that Professor Kocher also takes much time and pains to show kindness and hospitality to the stranger visiting his clinic.

The work in Professor Kocher's clinic was extremely interesting, and one has there an opportunity of seeing many cases of goitre. The operation is conducted under local anesthesia, novocain being used for the purpose, the solution being made up with normal saline, and the addition of a small amount of adrenalin. In most cases from half an hour to one hour before operation, one-eighth of a grain of morphia is administered. Under exceptional circumstances, a general anesthetic is given; thus, in a girl fifteen years of age, ether on an open mask was chosen in preference to novocain, because the child was frightened, and would not remain calm under a local anesthetic. In all the goitre cases the collar incision is used. All bleeding points are secured with great care, and in the case of one operation, conducted by Dr. Albert Kocher, there were no less than fifty-one forceps in the wound at one time. During the operation the parathyroids were sought for, and when recognized were carefully preserved from injury. The infra-hyoid muscles were divided, but not the sterno-mastoid; the latter muscle was retracted sufficiently to give free access to the growth.

In connection with the thyroid work in Kocher's clinic, it is interesting to note the operations for the transplantation of thyroid disease in myxoedema.

While Professor Kocher was operating upon a goitre, his son carried out the following procedure upon a patient who was suffering from myxoedema. He cut down upon the tibia, divided the periosteum and gouged out a cavity in the bone. A portion of the thyroid tissue



which Professor Kocher had removed was then implanted in the cavity in the tibia and the periosteum stitched over this. The wound was then closed. This method of dealing with patients suffering from myxœdema has given sufficiently marked results to encourage further attempts in this way.

In excising the knee joint for tuberculous disease, one noted the fact that the tourniquet was used during the operation, and also that, although no sinuses existed, the wound was carefully drained by several glass drainage tubes. Before sawing the bone an abscess cavity which existed behind the tibia was thoroughly curetted and then swabbed with a mixture of carbolic acid, one part, and camphor two parts. After the dressing was applied, the whole limb was secured in plaster of Paris, which, we were told, was to be renewed in twenty-four hours; further, some gauze which had been packed into the abscess cavity was enclosed there, to be removed at the end of eight days.

Kocher's assistants did several operations, such as appendicectomy and hernia. The clinic was conducted before 200 students, 70 per cent. of whom were women, the latter chiefly Russians. Anatomical and pathological details were demonstrated by means of models, blackboard diagrams and X-ray exhibitions.

The care with which Professor Kocher would carry out the details of a difficult operation was exemplified by a case of gunshot injury of the arm, in which paralysis of the musculo-spiral nerve had resulted.

The injury had been received two months previously. The nerves of the brachial plexus were exposed in the axilla and the various nerves recognized by stroking them vigorously in a transverse direction with forceps and watching the muscular contraction which occurred in the hand and forearm. Loops of silk were passed around the nerves to preserve their identity. Finally the musculo-spiral nerve was secured and found intact in this part of its course. The arm was now turned over and an incision of six inches long was made on the posterior part of the arm and the musculo-spiral nerve exposed in its groove, and at this point was found to be divided. The ends were freshened and sutured with fine silk. The operation up to this point lasted two hours and a half. The patient was then handed over to an assistant for the purpose of closing the wound.

In performing a gastro-enterostomy for malignant disease of the stomach, Professor Kocher found that the stomach would not come up far enough to permit of the posterior operation. He then proceeded to anastomose by the anterior method. Two clamps were applied to the stomach through holes made in the gastro-colic omentum, isolating a V-shaped portion of the stomach. The jejunum was brought up and a good loop clamped off. Simple silk suture was used for the purpose of effecting the anastomosis.

In Professor Arnd's clinic in Berne one had an illustration of how much German patients will sometimes endure without anesthesia.

The case referred to was that of a man who had a simple fracture of the femur of three weeks' standing with angular deformity. Professor Arnd prepared the region of the knee and with antiseptic precautions drove two stout nails, each five inches long, one into the inner and the other into the outer condyle of the femur. Antiseptic dressings were applied about the nail where it entered the skin. Beyond the dressing picture wire was fastened to the nails in such fashion as to form a loop extending two inches beyond the heel. One was informed that extension would be applied to this loop of some forty pounds, and by this means it was hoped the deformity might be overcome. The patient complained severely of the pain during the operation, and I was informed that the only anesthetic he had received was one-half gram of veronal about three hours before.

At Lausanne one was interested in seeing the clinic conducted by Professor Roux. This eminent surgeon, who has made numerous contributions to surgery, is an operator who attains what one might describe as spectacular effects. He is very rapid in his work, as might be evidenced by the fact that one morning he did five major operations in two hours. These included a gastro-enterostomy, ligature of a ruptured patella ligament, cholecystostomy, appendicectomy, and an exploratory incision for suspected malignant disease of the stomach. The appendix was removed through the smallest incision I ever saw made for that purpose.

The wound was certainly not more than an inch and a quarter in length. He pulled the peritoneum into the wound, and after opening it introduced his finger, which completely filled the wound, and sought for the appendix. McBurney's gridiron incision was employed. The appendix was brought readily into the wound, sutured, and after crushing was separated by the thermo-cautery; the opening was closed by purse-string sutures. Buried sutures were used in the abdominal wound, and the skin closed, as is usual in his clinic, by the use of Michel's hooks.

Roux is quite an original character. He talked very rapidly and excitedly, and has a custom of never informing his assistants as to his definite intentions when he begins an operation; he takes pleasure in keeping them guessing as to what is going to take place next. His assistant told me that he was, under these circumstances, much surprised during the development of an operation which had been recently conducted for oesophageal stricture.

In this case the stricture was at the root of the neck, or slightly below that point. He proceeded to open the abdomen and selected a sufficiently long loop of jejunum, which he brought up into the wound. He isolated this portion of the bowel and restored the continuity of the bowel by anastomosing the divided portions above and below the seat of the division. The isolated piece of intestine was carefully ligated along the line of the mesentery some two inches from the bowel, so as to leave the arterial arcades of anastomosis, and their connection with one of the large mesenteric vessels uninjured; the

latter had been carefully preserved as it furnished the blood supply to the lower end of the jejunum loop. He then tunnelled up under the skin in front of the left side of the sternum and the left costal cartilages. The lower end of the isolated jejunum loop was anastomosed to the stomach in its anterior wall near the cardia. The upper end was anastomosed to the œsophagus in the neck, the piece of bowel passing up in the tunnel formed for its reception under the skin, and in front of the sternum and cartilages. This operation was done some months ago on a boy fourteen years of age, and I saw the patient in the ward and observed the result of the procedure. Roux's assistant told me that the lad was thin and emaciated to the last degree when he underwent the operation, and after the anastomosis described had been done, he increased rapidly in weight, and now appears in excellent health. One could observe when he was given water to drink the peristaltic wave passing down the piece of jejunum as it lay under the skin of the chest wall. By this operation Roux had succeeded in restoring the continuity between the mouth cavity and the stomach.

Roux in his clinic used two large blackboards, on which he made numerous freehand drawings. The students numbered about eighty, sixty per cent. of whom were women. After the clinic he proceeded to operate, and after he had finished he sketched upon the blackboard the important steps of each procedure, for demonstration to the students, who would assemble the following morning.

In a case of cholecystotomy he brought out a very much enlarged gall bladder into the wound and sutured it carefully by continuous suturing to the parietal peritoneum. The gall bladder was then opened and two large gall-stones removed. I was informed that in three weeks the gall bladder would be closed and returned into the peritoneum. Roux does not excise the gall bladder, because he states, "You never know when you may wish to perform a cholecyst-enterostomy for malignant disease."

In a case of tuberculous cystitis in a man thirty years of age, the bladder was washed out under ether with carbolic of the strength of one in twenty. One readily believed the accuracy of the statement made that the procedure was excessively painful and required the administration of morphia subsequently. It is said, however, to be very effective in this serious manifestation of tuberculous disease. The operation is done once a week.

In Munich one visited the large and well-equipped hospital, where one had every facility for obtaining information regarding the conduct of clinics, and the work of the hospital in general. Professor Müller, who visited Toronto some three years ago, was found conducting a clinic in the medical wards.

He was giving a clinic on hearts, instructing what he called his "Percussion Class." On each bed a slate and pencil and chalk were found for the purpose of making illustrations, and these seemed very useful. About a dozen students were following the professor. In the space of three-quarters of an hour he had visited some twelve or fourteen cases, pointing out at each the salient features. He would leave two or three stu-



dents at a case as he went with the balance of the class to another patient. He worked with great rapidity, and talked incessantly. Many cases were auscultated by placing the bare ear to the bare chest. At all other times a single wooden stethoscope was employed.

In Professor Angerer's clinic in surgery, one found the usual extensive allotment of beds to the surgeon in charge of the clinic. Professor Angerer had 350 beds under his care, and associated with him were twelve assistants. The surgical portion of the hospital is quite new; all wards are large and well ventilated, and contain about 20 beds each. In this wing of the hospital, too, the gynecologist had one hundred beds, and here, too, wards are provided for many private patients. The operating-room in which Angerer operated was large, and would seat about three hundred students.

A fibro-adenoma of the upper jaw was removed in a woman about twenty years of age. The anesthesia was very badly provided for; the patient was sitting almost bolt upright in a very insecure posture. She had had morphia before the operation. Chloroform was given on a mask, but after the operation was begun no further anesthetic was administered and there was no local anesthesia. The operation lasted forty minutes and consisted in the removal of the greater part of the upper jaw. The patient moaned incessantly. I was told that the degree of anesthesia was what they called "Half Narcosis."

The visitor to Munich should not fail to see the magnificent and luxurious Anatomical Institute, which has just been opened. It is the most extensive and complete thing of the kind to be seen anywhere. The limitations of this paper will not permit a detailed description. Ample facilities are furnished for gross and microscopic anatomy; numerous rooms, with library, private retiring rooms and lunch room. Elaborate apparatus is found in the X-ray and photographic rooms. There is a museum in connection with the Institute, which is open to the public during certain hours of the day. In this institution they dissect some 200 cadavers in a year, but they have about 600 students studying anatomy.

Turning aside to some extent from the beaten road, the visitor is well repaid by visiting Jena, a small town famous as being situated near one of Napoleon's battlefields. The town had only 21,000 inhabitants. The object of visiting Jena is to visit the surgical clinic of Professor Riedel. This surgeon, although doing his work in a small town, draws his patients from all over the German Empire. The chief part of his work is done in the surgery of the gall bladder and bile ducts. Many will recall his name as associated with the abnormal enlarge-

ment of the right lobe of the liver, which has for some years been described in text-books as "Riedel's Lobe." The school in Jena is a small one, and in Professor Riedel's clinic are found only fourteen students; no women. The professor used the blackboard freely in illustrating his clinic. He occupied an hour in demonstrating the clinical features of osteomyelitis occurring in the tibia and femur of a girl thirteen years of age.

Osseous ankylosis had occurred at the hip joint, and after the students left, he proceeded to operate in this case. Leaving the ankylosed head in position, he did a transverse osteotomy through the great trochanter. He then excavated a hollow to form a new acetabulum for the reception of the upper end of the femoral shaft which he rounded off; he dissected a band of tissue and stitched it between the fragments with cat-gut in order to secure the formation of a false joint at that point.

A posterior gastro-enterostomy was done by an assistant using interrupted silk sutures without clamps of any description. A good long loop of jejunum was utilized and lateral anastomosis of the loop carried out. The anesthetic was chloroform, as is usual in this clinic. It was started, in this case, by an assistant, and for the last three quarters of an hour, continued by the ward tender. In an operation for excision of the hip joint an incision fully ten inches long was made over the trochanter major. The neck and greater part of the trochanter were sawn through. The acetabulum was said to have been involved. This large wound was left open without suture and packed with gauze.

On visiting the wards with the assistant, it was pointed out that most of the cases were either gall bladder or appendicitis. One case had recovered where an abscess secondary to gall bladder trouble had formed in the liver and ruptured into the lung. He drained this successfully.

In an operation for cholecystitis, Professor Riedel removed the gall bladder. Cholecystectomy he does very frequently and in this respect his methods differ from those of Roux above referred to. The case in which he had operated was said to have been a case of "Cholecystitis Concrementosa."

In the morning clinic Riedel occupied an hour and a half with demonstrations on appendicitis, illustrating his clinic with cases of fecal fistula and ileus.

At Leipzig one naturally visited the clinic of Professor Trendelenburg. He began his clinic at 7.30 a.m., and the arrangements for teaching in his operating theatre are excellent. One is not so sure that they are equally well adapted for aseptic surgery. There were eighty students (five women), in his clinic. As each case was brought in he called four students for questioning purposes. His thorough method of instruction may be illustrated by referring to a case of undescended testis, with hernia. This case he went into thoroughly, describ-

ing the causation, varieties and treatment. Then he turned on the electric current, darkened the room, and, with the epidiascope, he showed photographs of all varieties of cryptorchism and ectopia testis and complications of hernia and tumor. All these illustrations were of photographs from his own clinic. These photographs were kept in a cabinet, and filed in groups according to the disease. He had all his pathological specimens in a room adjoining the theatre, where there was quite an extensive museum. These museum specimens were likewise collected from his own clinic.

As each case was operated upon, the field was first painted with tincture of iodine, and then with a mixture of oil and benzine.

As the professor was proceeding with one of his operations, there was a sudden stir in the operating-room, and it was explained that one of the patients in the ward had developed thrombosis of the pulmonary artery. Professor Trendelenburg said he would try to remove the clot. The woman, aged about fifty years, was suffering from thrombosis of the right femoral vein, with oedema of the limb below. She had a rapid pulse and marked dyspnoea, these symptoms having developed suddenly. By the time she reached the operating-room, however, she had rallied somewhat, and the professor made up his mind that the case was not pulmonary thrombosis, but acute dilatation of the heart. This led him, however, to exhibit some interesting things. First, the heart of a calf, with a cicatrix in the pulmonary artery. He had induced thrombosis in the calf by tying the jugular and inducing the clot to pass back to the heart in some way. Then he cut down and removed the thrombus from the pulmonary artery, and the animal recovered. After six months he killed the animal, and hence the specimen. He then showed me two other specimens. These consisted of two clots (one broken and the other bifurcated), each about six inches long. These were from two cases in which he had operated in man. One patient had survived the operation 36 hours and the other 19 hours. The latter, he said, died from hæmorrhage from the internal mammary artery, otherwise he thinks he might have saved him.

It was interesting to an Edinburgh graduate to learn from the professor that he spent his first year as a medical student in Edinburgh in 1867, and heard Syme, Simpson, Christison and other celebrities of that date. He said his main object in going to Edinburgh was to learn English.

An incident which illustrated the enthusiasm which still



exists in this surgeon was that when he thought the writer would be disappointed because the operation for pulmonary thrombosis did not come off, he remarked, "Never mind, come this afternoon at five and I shall do it for you on the cadaver."

The visitor at Leipzig will be repaid by visiting the Children's Hospital, where he will be courteously received by Professor Tillmanns. This is a comparatively small hospital of sixty beds.

At Berlin one is naturally interested in the work done in Bier's clinic. Professor Bier is best known in connection with the work he has done in utilizing hyperemia as a therapeutic measure. The clinic begins at eight in the morning. There were one hundred and twenty-five students present, of whom ten were women. In this theatre one-half of the front row of seats is reserved for visiting doctors. The blackboard and X-ray demonstrations are excellent. The clinic lasts for an hour and a half every day, and then operations begin and continue for the rest of the morning. Bier is a good anatomist, and one admired his method of naming each structure as he cut it, whether operating on the trunk or the extremities.

He did a Kraske operation for rectal cancer in a patient about fifty years of age under spinal anesthesia, tropacocain being used for the purpose, preceded an hour and a half before operation by scopolamine. After injection of the tropacocain the patient is inverted with the head down, the table being at an angle of forty-five degrees with the horizon. It was noticed in this clinic that silk was constantly used for suture material; in a radical cure of hernia, for example, silk was used throughout from peritoneum to skin inclusive.

In one case of hernia operation, Bier used an electric knife, which he stated was being employed by him for the first time. It consisted of a glass rod through which ran a wire. This terminated in a spear-shaped extremity, evidently of platinum. The tissues were not charred but cut cleanly, and it produced a perfectly clean-cut wound, such as would be made by a sharp knife. It was explained that a high tension current was used. The knife was again employed by Bier in a case of excision of the parotid gland for carcinoma.

In a case of intestinal obstruction, due to general peritonitis, following appendicitis, the abdomen was opened and Professor Clapp's apparatus was used to evacuate the contents of the intestine. A piece of distended bowel is taken and clamped off, after pressing the contents momentarily into the neighboring bowel. This empty bowel is opened and a tube introduced into the intestine, and secured there by purse string sutures. The contents are evacuated by aspiration without soiling the peritoneum. The bowel was threaded on the rubber tube, which could be pushed on for a distance of about two feet into the interior of the intestine.

A case of recurring sarcoma of the thigh was presented, in which Professor Bier, some months previously, had removed the growth, and in the effort to effect a radical cure had amputated the limb, along with the innominate bone, down to the pelvic brim, controlling the hemorrhage at the time by compressing the abdominal aorta with an

elastic band. One was informed that the control of hemorrhage was perfect and that no damage was done by compression, to either bowel or kidney.

The methods of utilizing hyperemia are illustrated in both the polyclinic and the "Septic Wards." Professor Schmieden, who visited Toronto some years ago, was particularly kind in his endeavor to give one every facility for seeing the work carried on in the clinic.

In the septic wards there were numerous cases of cellulitis of the hand and arm. The routine treatment for these was: (a) Employment for twenty hours of constriction above the affected area to induce hyperemia. There must be no pain or tingling, else the bandage is too tight. (b) Elevation of the limb for one hour, without constriction, to permit the edema to go down. (c) Daily dressing, with squeezing out all the pus and discharge, along with passive and active movements of the affected parts. The dressing seemed very painful. Professor Clappe tells me he uses this method for both staphylococcus and streptococcus infections, and the cases he showed illustrated both varieties. He does not cure these cases.

There were two cases of osteomyelitis treated in the following fashion: The tibia had been exposed from end to end with only one suture in the middle of an incision ten inches long. Iodoform gauze was laid in the incision. The dressing in all cases consisted of gauze wrung out of "superoxygenated water."

In the polyclinic one had an opportunity of observing many applications of the hyperemia method:

1. Whitlow and phlegmons, as in the septic wards.
2. Various forms of arthritis.—Stiff joints and tendons. Active hyperemia by hot air for twenty minutes to one hour. The apparatus was a large air chamber, the size of a large hot-air furnace, about ten feet in diameter. Holes in the side of this are fitted with rubber caps of various sizes to fit arms above and legs below. Sixteen patients can be accommodated at once. Hot air is applied to this chamber, which is kept at a constant temperature.
3. Rheumatism.—Whatever that term implies is treated by hot air massage. This is compressed air driven by a motor with rapid vibratory force, and impinges on a part through a glass nozzle the size of a small fire hose. It is very grateful to the feel, and is said to do much good.
4. Suction hyperemia.—Also applied in arthritis, with special apparatus for arms and legs.
5. Orthopedic.—A case of flat foot was being treated in a closed box, with a pulley apparatus so arranged that when

suction was applied hyperemia was produced at the same time as the deformity was corrected.

6. Tuberculous arthritis.—Two hours constriction daily, with massage and passive movements. Between times the limb is supported on suitable splints, so devised that the individual can get about without bearing weight on the affected joint.

7. Cupping.—In certain cases, such as mastitis, cervical abscess, and abscesses in different parts of the body.

One feature of Bier's clinic which appealed to one as of value was that near the operating theatre was the department for experimental surgery, where animals could be operated upon, with all the necessary technique for aseptic surgery. After spending the greater part of the morning in the operating theatre, Professor Schmieden retired to the room for experimental work, and performed a transplantation of a portion of a vein into an artery in a dog.

In Berlin one found Professor Casper doing special work in connection with the surgery in the urinary organs; more particularly is he known in connection with cystoscopic work. The writer found him in his laboratory, overseeing the analysis of urine in some of his cases. He was vigorously wielding the wire stirring rod in testing the freezing point of a sample of urine. After completing this he proceeded to investigate microscopically the urine withdrawn from each ureter in a case in which he proposed to operate on the following morning.

At his clinic in the hospital he performed nephrolithotomy and nephrectomy in a man fifty years of age. This case was one in which there was a large club-shaped calculus, about three inches long, in the kidney. He clamped the pedicle of the kidney before splitting that organ to excise the calculus. To the onlooker it seemed that an attempt might have been made to save the kidney.

One admired his skill in doing cystoscopic work. He is not only expert in getting a good view of the interior of the bladder, and in passing the ureteral catheters, but he displayed great skill in using the operating cystoscope, by means of which he snared portions of a growth in the bladder which he was removing piecemeal in a patient 72 years of age.

Casper, as is the case in other surgical clinics visited, prefers the suprapubic method rather than the perineal for prostatectomy. Three recent cases of this operation were exhibited.

At the Krankenhaus am Urban, Professor Körte was visited. With him the visitor made ward rounds; he saw 180 patients in three-quarters of an hour! He simply obtained verbal re-



ports from his house surgeons as he went along. Six house surgeons accompanied him. His assistants seem to stand in awe of him, and he never spoke excepting to find fault. After the ward visit, several operations were performed in the theatre.

At the Charité hospital, one visited the clinic of Professor Hildebrandt, who conducted his clinic at ten in the morning. He gave a demonstration of various cases in a theatre accommodating one hundred students. As is usual in these German clinics, some three or four students were brought down to the floor of the theatre, and questioned upon the case under observation.

After the students had withdrawn, a number of operations were performed: Colotomy for intestinal obstruction; excision of half the tongue for cancer, with preliminary ligation of the lingual artery; dermoid cyst of the middle line of the neck, etc. At the same hospital Professor Bumm conducts a clinic in gynecology. He is a skilful operator, and does very thorough and neat work. This was particularly observable in a case in which he performed a vaginal hysterectomy and colporrhaphy. The Charité is a huge hospital, containing many buildings and pavilions, laid out quite irregularly, and one easily loses one's way in the labyrinth of walks between the various buildings. It is like a small village.

The Government hospitals in Berlin are in most instances very extensive. The Charité is a type, as is also the Krankenhaus Moabit, where one visited the clinic of Professor Sonnenburg. This hospital accommodates some 1,200 patients. It is built in separate buildings, each building being in itself a complete pavilion, capable of accommodating thirty patients. There was no attempt at architectural beauty, but the individual pavilions looked like so many long sheds one story high, extending off at right angles from either side of the many walks.

The finest hospital in Berlin is undoubtedly the R. Virchow Krankenhaus. The hospital at present accommodates 1,600 patients, and before the end of 1909 will be enlarged to accommodate 2,000 patients. The grounds are beautiful, with fine walks and carefully cut hedges. The walks are carefully kept and many garden seats are distributed throughout the grounds. There is a separate operating pavilion, which forms one of the most perfect arrangements for the conduct of surgical operations that one could see anywhere. It is beautifully finished in white tiles, with the stone floor which is a common feature of all German hospitals. There are two operating-rooms, one of which is reserved for septic work.

There are some thirty or forty pavilions in this hospital, each separate and complete. Asphalt walks run in various directions, and the house staff make their rounds chiefly on bicycles, as the distances between different points in this small village are considerable.

Professor Borchardt has charge of the surgical clinic. He is apparently a younger man than most of the senior surgeons met elsewhere. He was engaged, when found by the writer, in dressing a case of sarcoma which he had successfully removed from the neural canal, where it was causing symptoms of pressure on the spinal cord. He had had eight similar cases, with only one death. Borchardt informed me that spinal and cerebral surgery was comparatively rare in Germany.

He put up two fractures, one of the humerus and the other of the radius, in which the apparatus of Bardenhauer, of Cologne, was used. The principle of this apparatus is exactly that which is carried out in the Aikin's splint for fracture of the arm. The apparatus is somewhat elaborate, although very efficient. It might be described as a glorified Aikin's splint.

The visitor to Berlin who is interested in seeing all that is worth seeing in connection with hospital and laboratory work should not fail to visit and become a member of the Anglo-American Club. The membership fee is five shillings, and this entitles one to all the privileges of the club. They meet once a week at a restaurant, and on each occasion have a paper read by some prominent man in Berlin. The subject may be medicine, surgery, obstetrics, gynecology, or some laboratory subject. The feature of the club is that at each meeting the members are asked to report for the benefit of their fellows any special clinic or laboratory work or special class that might be of service to others. This information is published by the secretary for the benefit of the members. There is a reading-room in connection with the club, where all the current journals are available, and through this society one can readily obtain information which may be of great value in aiding one whilst pursuing his studies in Berlin.

This paper may be concluded by reference to one or two comparisons as to the conditions found in the different German and Swiss clinics visited:

1. *Size of Clinic:*

In Kraske's clinic, in Freiburg, 300 beds.

In Roux's clinic, in Lausanne, 160 beds.

In Angerer's clinic, in Munich, 350 beds.

In Riedel's clinic, in Jena, 200 beds.

In Trendelenburg's clinic, in Leipsig, 300 beds.

In Körte's clinic, in Berlin, 200 beds.

In Hildebrandt's clinic, in Berlin, 300 beds.

## 2. *The Number of Students:*

The following list will suggest the number of students attending an individual clinic:

Narath, in Heidelberg, 75 students (8 per cent. women).

Kocher, in Berne, 160 students (60 per cent. women).

Roux, in Lausanne, 80 students (60 per cent. women).

Angerer, in Munich, provides room for 300 students.

Riedel, in Jena, 14 students.

Trendelenburg, in Leipzig, 80 students (6 per cent. women).

Bier, in Berlin, 125 students (9 per cent. women).

In regard to women in attendance, it would be noticed that most of the women attending German clinics are Russians.

## 3. *Operating Theatre:*

The operating theatre is used both for operations and as a place for the clinic. Patients from the wards are brought in indiscriminately and students are usually called down to the floor of the theatre for questioning purposes. The blackboard and X-ray demonstrations are excellent and most efficiently carried out. At Leipzig, in Trendelenburg's clinic, the use of the epidiascope was most effective in demonstrating photographs and pathological specimens taken from the museum, which immediately adjoins the operating theatre. A point of the clinics which appealed to one as excellent was the fact that the various teachers were all expert anatomists, and took great pains to impress upon their students the importance of observing anatomical detail in connection with the various cases.

All cases, septic and otherwise, were brought into the same theatre. An exception to this rule was found in Kocher's clinic, in Berne, and Borchardt's, in Berlin, where a special room was used for aseptic cases. Occasionally several operations were proceeded with at the same time in the same theatre; thus there were three major operations under way at once in Narath's theatre. A further feature in Narath's clinic was that already alluded to, namely, the Professor demonstrating what was going on while his assistants operated. In Riedel's clinic it was observed that opportunities were afforded for a student to do minor operations, such as excision of a cervical gland under general anesthesia. The floor of the operating theatre was quite a feature. It was invariably made of stone, with a bell trap in the centre. Everything was thrown upon the floor. Solution basins were emptied on the floor and bloody sponges were always thrown there. This produced a very untidy appearance. The maximum was reached in one theatre where the attendant went around with a wooden hay rake, after the operation, to clear up the floor.

Lighting of the theatre:—

Light was usually obtained by direct sunlight, but in the case of Krönig's theatre, in Freiberg, a very excellent method of producing light from an arc lamp has already been described. (See above).

## 4. *The Technique of Operation:*

(a) *Preparation of the patient*—

It would appear that the preparation of the patient was always done in the operating theatre. The patient was brought to a room adjoining and entirely divested of clothing, which was replaced by gowns or some such covering provided for in the theatre. The shaving and scrubbing up was carried out on the table, and the area to be operated on was prepared then and there.



*(b) Gloves—*

The wearing of gloves during an operation was quite an interesting study in the various clinics visited. The following summary will serve to indicate how varied the procedure is in this respect:

In Roux's clinic, in Lausanne, no gloves were worn.

In Goldman's clinic, in Freiburg, the operator wore, first, a linen pair, and over that, a rubber pair of gloves. The assistants and nurses wore no gloves.

In Krönig's clinic, in Freiburg, rubber gloves were worn by the nurses only. All others had bare hands.

In Kocher's clinic, in Berne, the custom varied. In a case of excision of the knee, the operator and the assistants all wore rubber gloves with linen ones over that. In a case of gastro-enterostomy, Kocher alone wore gloves, his assistants had none.

In Niehan's clinic, in Berne, rubber gloves were worn and linen over the rubber, and during a single operation, where the operator wore rubber gloves over a pair of linen ones, the linen gloves were changed three times during the operation.

In Trendelenburg's clinic, dry gloves were worn. It was noticed that Trendelenburg donned his gloves dry without washing his hands.

In Bier's clinic, in Berlin, the operator occasionally wore gloves, and the assistants almost invariably did so, but the nurses who handled the instruments wore no gloves.

In Borchardt's clinic, in Berlin, all wore dry sterile gloves; rubber gloves and in addition sleevelets of rubber. This custom was carried out both by the operator and his assistants and nurses.

*(c) Masks—*

In no instance did one observe masks worn by German surgeons.

*(d) Caps—*

The only clinic in which caps were worn was in that of Kocher's, in Berne, and it appeared that all the nurses and assistants wore caps, the only individual who had his head uncovered was Kocher himself.

*(e) Boots—*

The German surgeons seemed to be most particular about their boots, and this would appear necessary from the condition of the floor of the theatre previously alluded to. These consisted of large, commodious clogs, which were slipped on over the ordinary boot, and protected the individual from the wet.

*(f) Anesthesia—*

In Narath's clinic, in Heidelberg, local anesthesia was almost exclusively used, *e.g.*, for goitre, colotomy, etc., Novocain in normal salt solution being employed. When a general anesthetic was given (as was the case in amputation of the leg) the anesthetic chosen was always chloroform.

In Freiburg, in Goldmann's clinic, local anesthesia was largely used (goitre, hernia, etc.), always preceded two hours before by scopolamine.

In Krönig's clinic, Freiburg, one found the method of spinal anesthesia extensively employed. He has done over one thousand cases, preceded by a preliminary injection of scopolamine one hour and a half, and another one hour before the operation.

In Kocher's clinic, in Berne, in an operation of excision of the knee, the anesthetic used was, at first bromethyl, followed by ether on an open mask. In all goitre cases local anesthesia (with one exception) was used. This is preceded by a hypodermic of morphia, one-eighth to one-quarter grain, one-half to one hour before the operation, unless contraindicated. He uses Novocain (2 per cent. "standard solution"), made up to 1 per cent. with normal saline and a few drops

of adrenalin added. From 5 to 25 c.c. are injected. When general anesthesia is used in Kocher's clinic, the anesthetist who begins the anesthetic often hands the administration over to another before the operation is completed. In one operation the assistant began the anesthesia and after the major part of the operation was completed, the sister continued the anesthetic whilst the wound was being stitched up. In one instance the anesthesia was completed by the ward-tender.

At Lausanne, in Roux's clinic, ether on the open mask was employed.

In Munich, in Angerer's clinic, the anesthesia was badly carried out, as is seen in the case of operation on the upper jaw referred to above.

At Jena, in Riedel's clinic, chloroform on an open mask was the invariable anesthetic, given usually by the assistant, but often turned over to the ward-tender before the case was completed.

At Leipzig, in Trendelenburg's clinic, the anesthesia was almost invariably chloroform, given on a Junker's inhaler.

In Berlin, Bier employed spinal anesthesia in a case of excision of the rectum. Tropicocain was used and the patient inverted at an angle of 45 degrees with the head lowermost. Morpho-scopolamine was administered one and one-half hours, and again three-quarters of an hour before the operation. In other cases general anesthesia was employed and that chloroform.

In Hildebrandt's clinic, in Berlin, chloroform was the general anesthetic.

One must not close this sketch without testifying to the unvaried courtesy and kindness with which one was received in the different clinics visited.

100 College Street.

## INVOCATION TO HIPPOCRATES.

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BY JAMES S. SPRAGUE, M.D., STIRLING, ONT.

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Venerable and ever-illustrious shade, our father in Medicine, O Divine Hippocrates, the son of Heraclides, thou of the Aeclepiadæ, who, before all others in our literature, doth stand alone in excellency. Thy name is in all nations equally venerated as by us. May thy name be ever thus sanctified, and may thy rulings, even thy medical kingdom which thou didst see, and now seest in *Coelis*, be those of these times on earth. May such rulings come, and the decisions of thy exalted spirit come, and thy will ever be done; for we, leaderless lambs, are at the mercy—the unrelenting mercy—of the patent medicine man. We pray thee to lead us no longer into grievous and thoughtless temptations, and if ever, even now deliver us from evil—the same evils—Eth-pharmaceutical, or made-for-the-doctor-at-the-front-door and at the back-door-for-the-dear-people, preparations. Food, ordinary bread (*pabulum diurnalis*), give to us. Such is *quant. suf.*, for we know (hence these tears) that the Eth-Pharm. Co. is getting all the cake, the cream and wine.

Are we, who are widely known as easy marks—yet as equally recognized as the prop, in fact, the hope of, and encouragers of interests concerning the public Health (its protection always being established as the Supreme Law)—yes, are we, in our indifference and want of *proper unity* in organization, to encourage and sustain the yellow-cover, and disgraceful and non-medical, non-ethical, medical journalism—such as exists? Why should we, who have placed our best garlands on thy altar, so wrapped in Theban lethargy, where, within the very shadows of thy temples and holy shrines, science cults, baseless as dreams, as false as Cassandra's prophecies, exist? Yes, why should we allow these to exist? Why not tell our *gullible brother* and the people, the errors and pitfalls whither the cults of erratics and visionaries are leading them? Are we, as Stoics, to sit “like unto our grandsires cut in alabaster,” and silently tolerate, and even encourage by our contributions, what are so styled Medical Journals—better named Medical almanacs, better yet as Almanacoids—the preserve for un-



ethical, base or disgraceful (too often) cerebral babbings of self-inflated and hired scribblers?

“Oh, wad some Power the giftie gie us  
Tae see oursel as ithers see us,  
Aye, better still, that ither swells,  
Wad see us as we see oursel.

Do not drag us further into the Serbonian bog, whither professors (non-pardonable), and country doctors (now and then fully pardonable, not knowing ethics, and foolish enough to believe the professors' stories in journals), have led us. Do now deliver us, deliver us from such evils and the Hydra—if ever, now. For not only are such so-called companies debasing Medical literatures, and the fair name of Medicine, but robbing us of our hard-earned shekels. Yes, even at this invocation are revisions being made in national Pharmacopoeias, in which such companies, in several instances, are urging, through the revisers, a fixed insertion of their patent compounds. Are we, who are thy disciples, faithful, and *inter homines eruditissimi*, adoring thee, thou venerable shade of the glory of Athens—thou of Cos, are we to abandon the B.P. and the U.S.P. for the price lists of the Pharm. Co. and the patent Medicine Almanac? If so, so direct—then we abandon Mat. Med., and Pharm.

The price list and its compounds need not have the stamp of the public analyst either. We thrice pray thee, thou harbringer of health to the once plague-stricken City of Athens, watered by the murmuring waters of Ilissus and Cephissus, to purify with equal celerity the temples of Medicine—*libera nos e malis in nostris temporibus*, for the odd and even named Proprietary Compound manufacturers are shaking the pillars of thy temples, and making slaves of us, thy disciples. Not least, free medical journalism from non-official preparations, and the marks of the fakir; so that thy name and our own names be not too unredeemably disgraced and lost among men; the people deceived, and we, too, impoverished in gifts, ever deprived of the offering of the ambrosial libations, and the chaplets to thy sacred altars and temples—*Salve Nos!*

## Selected Article.

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### THE INTERNAL TREATMENT OF SYPHILIS.

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BY DR. E. ROTHSCHUH, OF AIX-LA-CHAPELLE.

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It is remarkable how the treatment of syphilis varies in different countries. The Englishman has but little time to spare from business or recreation, and therefore takes his medicine in the form of pills or powder; the Frenchman delights in the elegance offered by the silver hypodermic syringe; the German and northern races, seriously minded and systematic, prefer the use of unguentum cinereum, according to certain fixed principles; the American, in deference to his happy-go-lucky disposition, has no particular preference, but supplements any of the above-mentioned methods by the liberal use of sarsaparilla; in the West-Indies, Central America, and the tropical parts of South America, the natives make use almost exclusively of the herbal concoctions of their country, which must be regarded as the home of syphilis, and are completely cured. The rest of the world accepts the method of the people with whom it has most intercourse, with the qualification that in southern climes the inunction method is almost an impossibility, owing to diminished cutaneous respiration through the blocked skin pores, and to the fact that the film of grease produces an intolerable heat congestion. The real reason that northern races cling to inunction cures is that in their case these produce none of those unpleasant subjective symptoms so well known to medical men who have endeavored to carry them out in the tropics. The fact that even in England inunction is so little practised may partly be explained by climatic considerations; the greater humidity of the climate hinders evaporation from the skin, and this hindrance is naturally still further increased by a layer of grease. The results of these conditions are an unpleasant sensation of heat, amounting to absolute oppression and objectively increased irritability of the skin, acne, furunculosis, and eczema, especially in the presence of the gouty diathesis so prevalent in England.

Until, by the aid of some further development of Wassermann's serum-diagnosis or of Wright's opsonic index, we are in a position to say to what extent a syphilitic patient is in-

volved in the disease, we shall be unable to ascertain, with respect to any method of treatment, how far it combats the syphilitic virus; until this is the case there can be no universal method of treatment, and we must take into consideration not only the constitution and resistive power of the individual organs, but also the soil and source of the infection, and the locality of treatment. This applies particularly to countries containing large towns, to ports, and especially here in Aix-la-Chapelle, where a number of international patients are passed under review by the physician.

The internal method of treatment is one of the oldest forms—indeed, it is the oldest of any—for the Mexican and Central and South American Indians, from whom European syphilis has with certainty been acquired, made use of the sarsaparilla root, guaiacum and sassafras woods, and other drugs of their country, with or without the concomitant of vapor baths, in precisely the same manner as their descendants do to this day. The fact that we make but little use of these medical substances at the present time is due chiefly to the inactivity of the marketed products. Paul employed guaiacum wood with the greatest possible success, but only when it was gathered after the first sap-driving falls of the rainy season; I myself frequently achieved complete cure among the more mildly infected Mestizos of Central America by means of fresh sarsaparilla or roots of the *Mimosa* species with similar action.

We do not know how these drugs act, but of mercury we know just as little; the great authorities on syphilis deny their action altogether. The view held by the latter that, at the present day, mercurial cachexia no longer exists probably goes too far. These cachectic subjects do not find their way to the specialists, but fall into the hands of institutions devoted to spa treatment. Even at the sulphur springs we occasionally encounter persons of debilitated constitutions who imagine that we cure without the use of mercury at all. As is well known, this is not usually the case, but, as a matter of fact, we succeed in the treatment of some patients without mercury, by the energetic use of infusions, combined with the usual balneological procedures. The best known preparations of this class are the *Potio antisypilitica Germanica*, prepared and used of old by John Hunter; the Roob Laffecteur, originally a secret remedy; and the decoctum Zitmanni, still the most popular preparation in Germany. Of these, the last-named only contains small doses of mercury. The excellent fluid extracts of Messrs. Parke, Davis and Co. also allow of a happy combina-



tion of sarsaparilla, sassafras, guaiacum and quinine bark, such as may be expressed by the following formula:

Extr. fluid sarsaparilla Honduras .....	3i
" " ligni sassafras .....	
" " " guaiaci .....	āā ʒiiss
" " cort. cinchonæ succirubræ .....	ad ʒx
T.d.s. from two to four tablespoonfuls in hot thermal water or sudorific draught.	

But mercury remains the sovereign remedy, having emerged victorious from all campaigns which have been waged against it since its introduction at the beginning of the sixteenth century. Internally, preparations of the most varied description have been used. Metallic mercury was used in the form of the Belloste cure by the French; the internal use of mercurial ointment, with a certain proportion of sapo medicatus, was for a long time regarded with favor by French physicians, and in England the employment of blue pills is still of frequent occurrence. In the latter country also still more frequent use is made of a mixture obtained by rubbing together one part of mercury with two parts of powdered chalk—the *hydrargyrum cum creta* of the Pharmacopeia. Hutchinson describes the preparation as being, perhaps, the most constant and least changeable of all. The French have lately returned to its use (Variot). The oxides are hardly ever employed; the red oxide produces violent diarrhea, the black is quickly decomposed. Of sulphur compounds, the red and the black sulphides are alike useless. The chlorides are still extensively used; the subchloride (calomel) formerly formed the principal constituent of numerous secret remedies, and even of so-called purely vegetable decoctions; at the present time it is used almost exclusively in the treatment of lues in infants. The perchloride, or sublimate, is still the most serviceable internal preparation for adults, though its unpleasant effects upon the digestive organs have been the chief stimulus for the discovery of substitution products by chemical industry. Well-known examples are the Dupuytren pills, the Desruelle and the Wedekind, and also the Dzondi method of sublimate medication. With the discovery of the favorable effects of iodine upon certain syphilitic manifestations, there occurred a predilection for iodine combinations. Thus, in France and in South America, and Eastern countries, which have shared the common fate of having suffered extensively from the disease, and have perhaps thereby acquired a certain degree of immunity, the use of pills composed of the moniodide is very prevalent. Thoroughly good results are yielded by Fournier's pills:

R	Protiodide of mercury .....	gr. $\frac{3}{4}$
	Extract of opium .....	gr. $\frac{1}{6}$

Ft. pil. i to be taken morning and night.

The biniodide is likewise much used in the form of pills, but chiefly, however, in the well-known Gibert's syrup, a preparation worthy of attention in practice among children; its formula is as follows:

R	Biniodide of mercury .....	gr. iii
	Potassium iodide .....	℥iiss
	Syrup simpl. ....	℥xv. s

This is very well tolerated, and is suitable for cases where it is desired to combine mercurial action with an active amount of iodine; another modification of the same for adults, which does not interfere with the digestive organs in any way is:

R	Hydrarg. biniod. ....	gr. $2\frac{1}{2}$ —gr. $4\frac{1}{2}$
	Potassium iodide .....	āā ℥ii—℥iv
	Syrup Chine et hy. ....	ad ℥xvss

Two or three tablespoonfuls (contents, biniodide gr.  $1\frac{1}{2}$  to 2, K.I. gr.  $7\frac{1}{2}$ ) to be taken a day.

Among the newer salts of mercury and iodine, hydrargyrum sozoiodolicum must be mentioned, as it deserves a more extensive use than it has been hitherto accorded. A publication which has lately appeared confirms the favorable results obtained by Schwarz, Tausig and others. Schwarz's formula is as follows:

R	Hydr. sozoiod .....	gr. ix.
	Extr. opii .....	gr. iiss
	Pulv. et Extr. Glycyrrh. āā q.s. ut. ft. pil. iv., xxxvi.	
	D.S. Two to be taken three times daily.	

This formula has proved extremely serviceable in my hands. In cases where internal mercurial treatment is indicated, however, I prefer this salt—viz., the di-iodo paraphenol sulphate of mercury, containing 32 per cent. of mercury and 4 per cent. of iodine. This compound is now much used, as it produces stomatitis less readily and relapse is not so rapid. At the present moment merгал is very fashionable in Germany; how long it will remain so is difficult to say. The majority of the numerous publications on the subject favor its use; some of the more recent only—and this is in accordance with my own personal experience—draw attention to the earlier occurrences of renewed symptoms of the disease; I am also quite unable to share the view that the early occurrence of stomatitis is a favorable sign. The extensive use of merгал must be regarded as a proof that there is a place even in Germany for the in-

ternal treatment of syphilis; nevertheless, I am convinced that the majority of German specialists have either remained faithful to injection treatment or will return thereto.

The other salts of mercury play an unimportant rôle in internal treatment as compared with those above mentioned. The more generally used among them are perhaps the hydrocyanide, tanno-oxydulate, and thymo-acetate.

In former times, certain other drugs besides mercurials enjoyed a reputation for internal treatment, but these are now of historical interest only; gold, silver, and platinum, as noble metals, were prescribed in this disease, so difficult of eradication, and had their partisans; other drugs were chlorine, opium, ammonia, and digitalis. They have all been long abandoned, as well as acids, such as nitric, hydrochloric and citric. Of acids, chromic acid again found an advocate quite recently in Guenz, who, however, in spite of his energetic propaganda, obtained no support. Arsenic has always remained a valuable tonic agent for the internal treatment of anemic syphilitics; as to whether the extensive use of atoxyl and similar modern arsenic injection methods will be followed by the discovery of specific effects upon the infection is a question which must remain undecided for the present; if so, the internal employment of arsenic will then have to be regarded from another standpoint, and modified accordingly. Sulphur also is a substance which was formerly used internally both in syphilis and skin diseases, and it is still a more or less open question whether the small quantities of sulphur in the sulphur springs have or have not any specific action upon syphilis; theoretically speaking, it is not impossible—and it is quite feasible that allied diseases, such as those due to spirochetes, protozoa, and trypanosomes will in future be influenced by means of the same curative agents—viz., sulphur or arsenic in certain definite compounds.

Finally, as regards iodine, the trouble which has been spent in the attempt to discover a substitute for potassium iodide, with its associated disagreeable by-effects, has not been altogether in vain. In the case of iodine, again, we do not yet know how it acts, whether specifically upon the micro-organisms or upon the toxins formed by them, or, what is more probable, as an "alterative" upon processes going on in the secretions and cells of the organism, in order to facilitate resistance to the infection. Speaking generally, the axiom that iodine is indicated for the tertiary forms, or, to put it more clearly, in all late forms of the disease, has maintained its



validity; but even in the early stages symptoms of a periostitic, rheumatic, or meningitic nature, as well as ulcerative processes, yield rapidly to the action of iodine, so that we do not now regard iodine as being the peculiar curative agent for any particular stage of the disease, but combine it at once with mercury; or, when threatening or very troublesome symptoms have been allayed by iodine, we proceed with casual treatment by means of mercury. Such, indeed, is the case in quartan or metasymphilitic diseases, such as *tabes dorsalis*, progressive paralysis, and the numerous cardio-vascular complaints which, according to the latest anatomico-pathological statistics and the tables of life insurance companies, bring about one-half of all syphilitics to a premature end, somewhere about twenty years after infection. Since the Wassermann serum examination gives a positive reaction in such cases, it must be our endeavor by refinement of diagnosis and more methodical treatment to provide against the occurrence of this stage. It is probable that with the aid of the serum examination above mentioned we shall be in a position to tell precisely when the body is entirely free from syphilitic virus, and we shall then carry out mercurial treatment, with intervals and in diminishing doses, until a condition of permanent negative reaction is reached. Presumably also—and this remark is substantiated by actual experience—early recognition of the cardiac and vascular diseases so much facilitated by the newer methods of diagnosis will demand an early and extended use of iodine. For this, if for no other reason, it is satisfactory that there exist iodine substitution preparations which possess the same action as the old potassium iodide, though not so rapidly exerted, and which give rise to much less iodism. The preparations which have been most extensively studied and favorably reported upon are iodipin (Merck), sajodin (F. Bayer and Co.), and iodglidine (Volkmar Kloepper). Iodipin is produced by the action of iodine upon oil of sesame, and is used subcutaneously with striking results. Sajodin is the calcium salt of monoiodobenzenic acid, and is produced from rape seed oil by combination with hydriodic acid. Iodglidine is a stable combination of iodine, with nuclein-free vegetable proteid. All three preparations are noted on account of their property of liberating iodine slowly and evenly in the form of potassium iodide, and thus with a smaller amount of iodine and less danger of iodism they display the same activity as a customary dose of potassium iodide. Experience must teach us how far these preparations are able to replace the old and well-tried galenicals in those secondary

and tertiary manifestations of syphilis which require iodine treatment. As a prophylactic for specific cardiac and vascular changes and for their early treatment, they may certainly now be used with advantage, since in small doses (two or three tablets a day) they may be taken for months or even years without causing any disturbance worth mentioning. The only thing to be desired is that pharmaceutical technique might soon be in a position to bring these tablets before us in a less prodigious form, and, in comparison, I might cite the excellently convenient tablets of Messrs. Burroughs Wellcome and Co.

Iodival, a new organic preparation of iodine, seems to be the most perfect substitute for iodide of potash according to the results obtained recently in research work carried out with the drug. It has the very high contents of iodine (47 per cent.) and passes through the stomach unchanged, while it dissolves in the intestinal tract in the form of a sodium salt. In this form it is absorbed and carried into the fatty and nervous tissues, where it splits up its iodine gradually during the next forty-eight hours; the body is thereby kept under the influence of the iodine for a considerable time. The effect of iodival is keen, even when small doses are administered. It supersedes by far the effects of iodide of potash, which drug is excreted from the body in a much shorter time. The new organic derivative of iodine, "iodival," combines the advantages of not interfering with the functions of the stomach and showing a special affinity to the central nervous system, which renders it a very useful preparation to be prescribed in the treatment of brain syphilis and the late secondary manifestations, and in serofula and arterio-sclerosis. The dose is 5 grains three times a day, and corresponds with about 15 grains three times a day of iodide of potash. A very interesting report has lately been published on the experiments with iodival by Prof. v. d. Eeckhout from the Pharmacological Institute, Heidelberg.

Other compounds of iodine which have been recommended, such as the iodides of sodium, ammonium, strontium and rubidium, cannot be said to possess any advantage over the potassium salt; if anything, the taste of them is even worse, and they are much dearer; tincture of iodine, taken in water, has also been praised, but on account of its horrible taste and its action on the teeth has not met with approbation. I can well recommend the use of the effervescing iodine compounds recently advocated by Friedländer. In my former practice in

the tropics I employed, with very favorable results for many years, the Sandow effervescing salts of iodine of 6 per cent. and 15 per cent., and still use them pretty abundantly even now in the warm seasons of the year; they are very trustworthy as regards the iodine content, do not disturb the stomach, and do not heat like corresponding quantities of solution of potassium iodide.

In summarizing, we may well say that the internal treatment of syphilis is still widely followed—and, in fact, that it is more often employed than any other method. That it is an effective method is proved by the circumstance that entire nations, including those most severely infected, such as maritime and southern races, have seen no reason for seeking a better. The question whether prolonged contact with the disease, and therefore some acquired immunity, accounts for its success among those nations whose preference lies in the direction of internal treatment, while nations less infected are obliged to employ methods more energetic, cannot be satisfactorily cleared up without further investigation into comparative and racial pathology. Be this as it may, the modern methods of diagnosis open up an immense field for activity, and it must be our hope that the manifold complications of syphilis may be recognized and treated correctly as such, and wherever possible prevented. In this, thanks to the products of modern pharmaceutical chemistry, the internal method of treatment will doubtless be called upon to play a great part. The principle applies here as in the whole field of medical science—do not judge generally, but individually!—*Folia Therapeutica*.



# Progress of Medical Science.

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## MEDICINE.

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IN CHARGE OF W. H. B. AIKINS, F. A. CLARKSON, AND BREFNEY  
O'REILLY.

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### Diuretin in Stenocardia.

Professor von Noorden, of Vienna, remarks on the excellent action of diuretin in stenocardia. Diuretin is to be taken three times a day, in doses of 0.5 to 0.6 Gm.; larger doses are unnecessary, and are, perhaps, even less effective. Diuretin and its allied combinations possess a definite vaso-dilator influence on certain vascular areas. This can be easily demonstrated in the case of the kidney. The small vessels of the heart are probably affected in the same way. This results in a diminished resistance and improved circulation, which account for the good effect in stenocardia. Improvement sets in after two or three days, and the difference is so marked that these must be ascribed to the action of diuretin in stenocardia—one of the most striking results which therapeutics can achieve. Diuretin should be persevered with for at least two or three weeks, but if a longer administration seems necessary there is nothing to stand in the way. The small amounts are well borne by the stomach. Von Noorden has never witnessed any bad effects from a long-continued administration of diuretin.—*Med. Klinik*.

### Exophthalmic Goitre.

In the *Johns Hopkins Hospital Bulletin* of September, 1908, Berkeley reports on the use of lecithin in the above disease. Numerous observers have seen benefit from the use of salts of phosphoric acid, more especially those of sodium and the glycono-phosphates; the author for three years has employed an alcoholic solution of lecithin in the treatment of cases of nervous asthenia (not psychasthenia), and latterly in a few of Grave's disease. Curiously enough, both classes have no objection to the remedy, in spite of its nauseating quality, and do not tire of it certainly until the nervous symptoms are well under control and the weight-curve has risen to normal. Again, they state that often within one hour after administra-

tion the "nerves" are quieted, the tremor, palpitation, etc., are alleviated; in fact, the majority assert that in its sedative action it surpasses the bromides. Berkeley found by clinical observation that the same patients showed marked improvement when under the lecithin course, whereas, when the salts of phosphoric acid were administered marked remissions occurred.

Berkeley requires at least one litre of milk daily to be taken by the patient, careful attention to the dietetic regimen, cutting off only foods known to disagree with the subject. Care must be exercised in its administration when there is any disturbance of the digestive functions, and also that erythematous rashes, due to overdoses of the preparation, be avoided.

Lecithin is a constituent of probably every body cell, more abundant, however, in those of the nervous system and in the leucocytes; its action as an erythrocyte producer is far above manganese and iron; it acts best with a slowly coagulating blood; it is probably a stimulant to the resistive power of the tissues generally; also increasing the secretions of the ductless glands, and the phosphorus content of the leucocytes. By some lecithin is credited with the action of an antithyroid hormone.

### Cerebral Arterio-sclerosis.

The following is a brief abstract of an article in the *Montreal Medical Journal*, by Colin K. Russell, dealing with the above subject.

The pathological findings are of especial interest; the dura mater is usually adherent, the pia slightly thickened, convolutions shrunken, ventricles dilated and the ependyma wrinkled; the cortex may show a worm-eaten appearance, due to arterio-sclerotic foci; in section the vessels, especially those of the lenticulo-striate nucleus, are prominent and gaping; the perivascular spaces showing general dilatation, accompanied by rarefaction of surrounding nerve tissue. Irregular cavities, in size at times as large as a pea, varying in number up to ten, situated in the region of basal ganglia, but never in the peduncles, bulb or cord, and rarely in the cerebellum, are met with, probably due to remote hemorrhagic foci and consequent softening. In recent lacunae, the periphery is infiltrated with phagocytes; later the wall shows a capsule of fibrous tissue; the cavity is sometimes traversed by strands of neuroglial tissue and vessels.

Clinically, the picture varies according to the distribution

of the degenerative areas. One must not lose sight of the fact that central arterio-sclerosis is not necessarily accompanied by concomitant peripheral lesions. The diagnosis lies between general paresis and senile dementia; in arterio-sclerosis one is struck by the labored mental action, feelings of helplessness and indecision, of rapid paroxysmal character. Consciousness of personality here remains for longer periods intact than in the other diseases; the affections become dulled, but are not perverted; excitement and delusive attacks are the exception; headache and vertigo are common; transient paresis and paresthesias occur; the pupil reactions usually remain intact; finally, after several years, dementia sets in, the patient succumbing to apoplexy, cardiac, renal or pulmonary complications.

### Epilepsy.

An interesting note, by David Gayden, in the *B. M. J.* of January 23rd, 1909, deals with the subject of treatment of epilepsy. The Bradford Guardians tried the experiment of open-air treatment, plus appropriate occupation, and the exclusion of all drug therapy. The author suggested in addition to this regimen that sodium chloride be excluded from the preparation of foods and from the table, sodium bromide being substituted. It was found that during the periods in which this was carried out, the total number of convulsive attacks among the patients was greatly reduced; this method, of course, is of greatest value in institutions. In the preparation of bread, instead of having salt added in the usual way, sodium bromide is substituted. In this way from one to two drams or more is taken daily without discomfort on the part of the patient. Apparently, the results have been most gratifying.

### Calcium Salts.

Arthur Luff, in the *British Medical Journal*, reviews the results obtained by the use of calcium in 120 cases coming under his own observation, in all of which a condition of lessened blood coagulability was proven or inferred. In 45 cases of the lymphatic type of headache, 82 per cent. were cured, four patients obtained no relief, and the remainder were benefited. It has been suggested by G. W. Ross, of Toronto, that this type, characterized by lassitude, slight anemia, subcutaneous edema and cephalalgia, experienced in the early morning hours, is due to "serous hemorrhage."



Thirty-seven patients suffering from chilblains were treated, with results almost identical with those obtained in the above disease. Eight cases of boils, which were associated with slight edema and coldness of extremities, were all reported as cured; seven of urticaria (non-dietetic), with similar associations, showed marked benefit in six; five of aneurism of aorta showed marked improvement. Cases of erythema, lichen planus, flushing of face, hemoglobinuria, pruritus, and several of excessive perspiration of hands and feet, were treated with excellent results; in all of these, slow coagulation of the blood was shown.

The author administers calcium lactate in 15-grain doses, dissolved in half an ounce chloroform water, one hour before meals, over a period of six weeks, the bowels being regulated by senna, salines being avoided, on account of precipitation occurring when exhibited in the presence of the lactate.

### Syphilis.

G. Pugin Meldon, Surgeon to the Westmoreland Lock Hospital contributed an article bearing on the treatment of Syphilis to the Medical Press of Nov. 4th, 1908; his observations in brief may be summarized as follows:

After remarking on the interesting fact that lues was treated by the Chinese more than 4000 years ago by inunctions of mercury, Meldon then proceeds to consider the use of mercurials as advocated at the present time; he first warns against their indiscriminate use in cases showing albuminuria, advises careful preliminary examination, and if necessary treatment of the teeth, frequent weighing of the subject and finally careful attention to the general hygienic regimen. To turn to the methods of administration of mercury, for intra-muscular injections a cream composed of metallic mercury  $\text{℥ i}$ , lanoline  $\text{℥ iv}$  by weight), vaseline oil (containing 2 per cent. acid carbolic) q. s. ad  $\text{℥ ii}$  of the preparation, thus giving a strength of 1 grain mercury in 10 minims, with a maximum dose of 15 minims; he also advocates a cream of the same strength using Palmatin as a base and containing "Creo-camph," or the use of  $\frac{1}{2}$  grain of calomel in a similar cream containing "Creo-camph" 20 per cent. (equal parts of absolute creosote and camphoric acid) which being both antiseptic and analgesic is of great advantage. The routine employed is two or three weekly injections of calomel cream, followed by three or four weekly injections of the metallic preparation, an interval of two months now elapsing.

If no symptoms appear before the end of that period, four fortnightly treatments of metallic preparation are given, followed by two months rest, the four treatments and period of rest are repeated, until patient is pronounced clear of infection, say for at least 2 years. If symptoms re-appear they are brought under control with the calomel injection. If the general condition and weight of the patient fail, it is wise to lessen the dose and give an interval of rest.

The only soluble salt used by the writer is the following: Hydrargyi perchloridi gr. vi, sodii chloridi gr. ix, aqua distill.  $\frac{3}{4}$  iv; he injects 5 minims (which contains  $\frac{1}{8}$  gr. mercury perchloride) three times weekly at the commencement, decreasing this to bi-weekly treatments. The routine is similar to that above described except that the intervals of rest are of one month's duration and the injections bi-weekly.

Points to be noted in the technique are the sterilization of needles and syringe with boiling oil, cool instrument before using, and do not warm the cream. The end of needle should be wiped before insertion, as a subcutaneous deposit of mercury gives rise to a painful nodule.

Mercury may also be administered by the more usual methods of inunction, fumigations, or per oram. The author believes that the benefit derived from iodides is largely due to its setting free residual mercury in the system; however, in the early headaches of syphilis it undoubtedly acts quite independently of mercury.

The use of "atoxyl" (sodium arylarsonate) in sleeping-sickness, like syphilis a protozoal infection, suggested its use in the latter disease. The action of the arylarsonates is probably due to their phagocytic properties, while mercury is directly germicidal. Meldon uses "Soamin" (a sodium salt of arylarsonic acid) less toxic and safer than "atoxyl." It is administered in intramuscular injections of 6 to 10 grains, on alternate days, until 75 to 100 grains have been injected; if mercury is used in the same patient an interval of at least two weeks must elapse between their respective administrations. It is seldom that under "Soamin" any symptoms re-appear. Finally the author holds that the surgeon assumes grave responsibility in withholding mercury in cases of lues, but justifies the use of arylarsonates alone where there is an idiosyncrasy to mercury, where tuberculosis complicates and where a prolonged course of mercury would not be carried out by the subject. Here the short course of "Soamin" affords better chance of cure than one of mercury carried out over a similar period.

B. O'R.

## OBSTETRICS AND GYNECOLOGY.

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IN CHARGE OF ADAM H. WRIGHT, K. C. M'ILWRAITH, FRED. FENTON  
AND HELEN MACMURCHY.

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### Treatment of Dysmenorrhea and Uterine Hemorrhages.

F. Girardi, of Cervinora, has used styptol in menorrhagia as well as in metrorrhagia, and reports that its action was to be relied upon. In every instance the bleeding was rapidly diminished, even in those cases in which hamamelis and hydrastis had been of no effect. The analgesic action of styptol was especially noticeable. The preparation also proved beneficial in cases that had been operated upon. For example, one year after a curettage, styptol promptly diminished both pain and hemorrhage when these symptoms reappeared.

Furthermore, Girardi recommends styptol to the operating gynecologist, because, when given after adnexa operations, ovariectomies, etc., it tends to prevent complications, and has a sedative action on the pelvic organs.

The author found styptol especially valuable in dysmenorrhea, as it not only diminishes the bleeding, but relieves the pain that is wont to appear several days before menstruation.

Besides its hemostatic action, styptol also acts as a sedative. Its sedative effect is probably due to a diminution of the irritability of the peripheral nerves, especially those of the genito-urinary system.—*Riv. internaz. di Clinica e Terapia*.

### Acute Inversion of the Uterus.

I read with some interest Mr. Holthusen's contribution to the "Journal" of January 23rd, as during the past few months two instances of a somewhat similar nature have come under my care, being the only cases of this description I ever met with, occurring, rather singularly, within five months of each other.

One, which occurred in July, 1908, was in a primipara, aged 23. The first two stages of labor were normal, but upon its expulsion the placenta was found attached to an inverted uterus, though not technically adherent. It was speedily separated with little or no hemorrhage. There was great disturbance of respiration and circulation, cyanosis, etc., in fact the patient had the appearance of imminent dissolution. On returning the uterus, which was effected with little or no diffi-



culty, the alarming symptoms gradually subsided. The patient, who was a very healthy young woman, made a splendid recovery.

The second case happened in December, 1908, in the second pregnancy of a woman, aged 30, with hip-joint disease and a weak heart. Labor was tedious and recourse was had to instrumental delivery. On some amount of hemorrhage taking place, it was found that the vagina was occupied by the uterus as well as the placenta. The latter was easily removed, but the return of the former to its natural position was an affair requiring the exercise of some care and manipulation. What immediate after-effects there were seemed more attributable to hemorrhage than to disturbance of the parts. The patient lived six weeks, then died from cardiac debility, anasarca, etc.

H. G. HAROLD CLARKSON, *British Medical Journal*.

### **Bacteria of Puerperal Uterus.**

A. W. W. Lea and E. J. Sidebotham (*Journal of Obstet. and Gynec. of the British Empire*, January, 1909), review the present-day knowledge of the organisms found in the vaginal secretions and lochial discharges of pregnant and puerperal women, and give the results of their own investigations as to the bacteria present in the puerperal uterus, and especially as to whether virulent streptococci can in these cases be distinguished from non-virulent ones by the power of hemolysis which they possess. Observers of the organisms found in the vagina during a normal pregnancy have arrived at widely different results. Walthard gives the following list of organisms which have been found: (1) Facultative anaërobic streptococci of the type of *Streptococcus pyogenes puerperalis*; (2) facultative anaërobic diplo-streptococci; (3) anaërobic streptococci; (4) staphylococci of the type of *Staphylococcus albus*; (5) bacteria of the *coli* group; and in rare cases (6) *Bacillus funduliformis*, (7) pseudo-tetanus bacilli, (8) *Bacillus aërogenes capsulatus*. The vaginal portion of the cervix and even the lower part of the cervical canal contain many organisms which do not, however, appear to be able to penetrate the protective zone of the cervical secretion during pregnancy, and all observers are agreed that the cavity of the uterus during a normal pregnancy is free from organisms. During the puerperium a large number of organisms of apparently little virulence are present at the vulval orifice; the vagina is comparatively free during the first twenty-four hours, but later the organisms pre-

sent during pregnancy multiply rapidly in the alkaline secretion; and, in spite of much difference of opinion, it must be concluded that organisms closely resembling those present in puerperal infection often exist in the upper part of the vagina and in the cervical secretion shortly after delivery, and that spontaneous ascent of the organisms into the uterine cavity is not infrequent. Schottmüller, who has for several years made a large number of observations, chiefly of organisms in the blood in cases of septicemia, was the first to claim that the virulence of the organism varies with its hemolytic power, and he regards a hemolytic streptococcus as pathogenic. His conclusions have not been altogether confirmed by recent work, since many observers have shown that hemolysis may be produced by organisms of little virulence, although considerable evidence also exists to show that the organisms in severe puerperal infection always show a marked power of hemolysis. Lea and Sidebotham examined the lochial secretions in a series of 58 cases between the second and ninth day after delivery, and found that organisms were present in the cervical canal cavity of the uterus in 80 per cent. of the cases. It was worthy of note that in 5 out of the 12 sterile cases no vaginal examination had been made during labor. The organisms were mainly those which have been shown to be present in the vaginal secretion during pregnancy; the authors find, however, that there is considerable evidence to show that organisms ascend from without during the early days of the puerperium. In the great majority of the authors' series of cases the course of the puerperium was entirely uninfluenced by the presence of the organisms. In 20 per cent. of the cases streptococci were cultivated, and in 5 cases these showed marked power of hemolysis. In 4 of the cases in which hemolytic streptococci were demonstrated the puerperium was afebrile throughout; in the fifth case there was a superficial infection of the endometrium with febrile symptoms. The authors, therefore, arrive at the conclusion that the presence of hemolytic streptococci in the vaginal or uterine secretion cannot, in itself, be regarded as an indication of the existence of infection.—*British Medical Journal*.

## LARYNGOLOGY AND RHINOLOGY.

IN CHARGE OF J. PRICE-BROWN.

**Morphology of the Turbinals.** John M. Ingersoll, *Medical Record*, November, 1908.

This writer, at the Annual Meeting of the American Laryngological Association, held in Montreal in May, 1908, gave a description of the turbinal bones in fishes, loons, reptiles, panthers, apes and man, illustrating his remarks with excellent drawings. Turbinal structures in fishes are used only for olfaction, and are simply ridges covered by olfactory mucous membrane. In reptiles, owing to the changed manner of respiration, the nasal organ functionates as well in respiration as olfaction; and both respiratory and olfactory turbinals are found. They are, however, quite simple structures. In birds the increased importance of the respiratory function was evident, and the respiratory turbinals show a high degree of development. The expanse of respiratory mucous membrane is largely increased by coil-shaped structures, while the olfactory turbinals are simply ridges.

In microsmatic mammals all of the turbinals exhibit a high degree of development. Their numerous fine branches and coils enormously increase the amount of mucous membrane exposed within a limited space, and thus increase the efficiency of the nasal organs.

In the apes examined, all of the turbinals had degenerated or reverted to some of the more primitive types.

In man the turbinals were quite similar to the turbinals of the ape, and were all rather simple structures. Rudiments of the fourth and fifth ethmoidal turbinates were sometimes found. The agger nasi was the rudiment of the nasal turbinal. Such rudiments were more frequently present in the embryo than in the adult.

**Diseases of the Accessory Sinuses of the Nose in Scarlet Fever.**  
Prof. Killian, *Journal of Laryngology*, Dec., 1908.

There are two forms of scarlatinal sinusitis—a simple and a complicated. The simple is fairly common, but often overlooked, passing off without becoming chronic.

The complicated form is much more widely known, and shows well-marked symptoms. Edema appears from the fifth day to the third week. There is marked tenderness on pres-



sure, with high fever. Occasionally there is slight exophthalmos. Usually the ethmoid labyrinth is the part mainly affected, the edema appearing at the inner part of the upper lid, varying in degree. In about half the cases an abscess occurs within the ethmoid cells. The edema and pus formation result from the spread of the inflammation to the periosteum. The bone is also rapidly infected.

The really dangerous cases are those in which the frontal sinus is involved. Three fatal cases are reported in children, aged, respectively, nine, ten, and eleven and a half years, all dying from purulent meningitis.

When edema occurs in a case of scarlatinal sinusitis, an operation is nearly always required. All diseased tissue should be thoroughly removed.

**Perforation of Soft Palate following Severe Attack of Scarlet Fever.** Abercrombie, *Journal Laryngology*, Dec., 1908.

This case is noteworthy on account of its unusual cause, as the old idea is still prevalent that perforation of the soft palate can only result from syphilis. The patient was a boy, aged four and a half years. The scarlet fever was exceedingly severe, almost costing him his life, and resulting in abscesses in throat and right ear, with extensive perforation of soft palate. The latter was not seen by the specialist until after adult life had been reached. The chief symptom it produced was that of defective speech. There was no history whatever of syphilis, and the conclusion arrived at was that the perforation was caused by the destruction of the tissues of the palate during the attack of scarlet fever. The parts affected were the right posterior pillar and soft palate.

Operation was not considered advisable.

**Case of Thyro-Lingual Sinus in a Boy, aged Fourteen.** Dundas Grant, *Journal of Laryngology*, Dec., 1908.

In this case the fistula opened about three-quarters of an inch above the sternal notch, and was surrounded by an area of cicatricial tissue. The cord could be felt extending up to the hyoid bone, behind which it disappeared. The finest probe could only be passed for the distance of three-quarters of an inch.

The sinus was freely dissected out, and above the impermeable spot it was slit up so that a fine galvano-cautery point could be inserted as far as its termination behind the hyoid bone. This was to destroy the secreting surface. When the dissection was finished, the removal of the sinus appeared to

be complete. The wound was then closed, but so much tissue had been removed, in order to dissect out the cicatrix, that primary union did not take place in the lower part. In the upper portion union was complete.

**Amputation of the Epiglottis in Laryngeal Tuberculosis.** J. Möller, *Zeitsch. f. Laryngol.*, Vol. I., Part I.

This writer reports ten cases in which this measure of relief has been employed. In four of them, the laryngeal disease remained completely healed after two years, nine months, four months, and two months, respectively. In one of these, the disease before operation not only involved the epiglottis, but was very extensive in other parts of the larynx. After removal of the epiglottis, healing was rapid and uninterrupted.

In another case there remained fairly extensive laryngeal tuberculosis, but dysphagia, previously very troublesome, was absent a year after the operation.

Two patients had died. In another case there was no return of the dysphagia, but the patient died later of cerebral tuberculosis.

The operation is not a very painful one, although when there is much infiltration the effect of cocaine is only partial. Alexander's guillotine is an ideal instrument for the purpose.

The indications for the operation are:

1. Tuberculous disease limited or almost limited to the epiglottis, the general systemic condition being good.
2. Marked dysphagia, caused by the epiglottic disease.
3. Advanced tuberculosis of the epiglottis, in cases of extensive laryngeal tuberculosis, even when there is no dysphagia, provided that lung disease is absent or slight.

**The Treatment of Laryngeal Tuberculosis by Direct Sunlight.**

Adolf Koch, *Medic. Corresp.-Blatt, des Württemberg. ärztlich. Landesvereins*, December, 1908.

This method of treatment is taught personally to each patient, and is carried out as follows: An outline of the general anatomical construction of the pharynx and larynx is first taught to each patient. Then they are instructed in the use of the laryngeal mirror upon themselves and upon each other, with directions how to place a large reflecting mirror to the best advantage, the upper half of it being covered by some black material, to obviate the reflection of the rays into the eyes. By these means the patients are taught to throw the sun's rays directly into the larynx, the actual seances being half an hour in length, and two each day. On hot summer

days the seances were limited to two or three applications of ten minutes each. In some instances, particularly in hot weather, the treatment would cause an immediate rise of temperature of several degrees, but within half an hour this would subside to the usual one.

The report gave a history of twenty-one patients that had been treated in this way. Of these, only ten had been under treatment a sufficient length of time to make a report worthy of detail. A cure was claimed to have been obtained in six of them, two were considerably improved, and in the other two some improvement had taken place.

The lesions which were reported as cured included ulceration of the posterior wall, infection and swelling of the ary-epiglottic folds, the ventricular bands and arytenoid region, and infiltration of the posterior wall. In one there was ulceration of the right ventricular band, and in one ulceration on the left vocal cord. The two cases which had considerably improved were suffering from ulceration of the posterior wall, and a somewhat similar condition prevailed in the remaining two.

The duration of treatment was from three hours on four days up to sixty hours on seventy-five days.

Although other methods were combined in the treatment of these cases, the author considers the results as encouraging, and purposes to continue the practice of this method of treatment.

**Case of a Young Woman with a Baritone Voice.** By F. Spicer, *Journal of Laryngology*, January, 1909.

In this case the diameter of the larynx was greater and the vocal cords broader but not longer than in the female type of larynx.

In the discussion, Prof. Chiari expressed the opinion that the larynx was male in type. Dr. Horsford disagreed with this conclusion. He looked upon the baritone voice as the result of chronic laryngitis, and forcing the deep chest tones of a contralto. The sexual organs of the patient had been examined, and they were found, both externally and internally, to be typically female.

### **Retrospect of Laryngology for 1908.**

The *Journal of Laryngology, Rhinology and Otology*, in its January issue, draws attention to the important work that has been done during the recent year in several departments of the specialist's field. Much advancement has been made in direct methods of illuminating the larynx, trachea and



esophagus, and while the technique as first demonstrated several years ago by Killian was excellent, much advancement has been made in the perfection of instruments since then. Brüning's instruments are thoroughly practical, and give splendid illumination, rendering the whole procedure of bronchoscopy and esophagoscopy much simpler. Chevalier Jackson, of Pittsburg, also has already won for himself imperishable laurels in this field of practical science, although his means of illumination is the very opposite of that practised by the European laryngologists, his lamp being placed at the distal end of his instrument.

The laryngologist, too, owes much to the physicist. From him he receives the incandescent electric lamps without which the direct method of inspecting the air passages would be impossible.

The position of the X-ray likewise can now be defined more accurately. Improvements in technique make it possible to take instantaneous chest pictures, giving less trouble to patient as well as physician. This enables the observer to distinguish between aneurism and fixed tumors of the simple or malignant type.

**Esophagoscopy.** Richard H. Johnston, *Maryland Medical Journal*, February, 1909.

The writer thus describes Chevalier Jackson's use of the esophagoscope: After cocainizing the pharynx and esophagus with special cotton carriers, the patient is placed upon the table, with the shoulders about four inches over the edge. The head, in extreme tension, is supported by an assistant in such a way that mouth, pharynx and esophagus are in the same straight line. With the mouth well open, the left index finger is passed into the right glosso-epiglottic fossa, and thence if possible into the pyriform sinus. The esophagoscope is then introduced gently, using the dorsum of the finger as a guide. When one is assured that the instrument has reached the sinus, the finger is moved toward the base of the tongue, which, together with the larynx, is pulled upward. If the movement is successfully carried out, slight pressure on the external end of the instrument sends it into the esophagus. As it passes the cricoid cartilage a slight resistance is felt. Once in the esophagus, the electric fitting is attached to the light carrier, and the tube is pushed gently down under the guidance of the eye to whatever part of the canal the operator may require to examine. In Chevalier Jackson's instrument, the electric lamp is always placed at the distal end of the tube.

## Editorials.

### THE EFFECT OF BATHS UPON THE HEART.

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The method recently introduced by Moritz, and used by Aug. Hoffmann and others for measuring the dimensions of the heart by orthodiagrams, has already shown its value. Rudolf and Beck have by this means made careful observations of the effects of hot and cold baths upon the size of the heart, and have communicated their findings to the *Munchener Medizinische, Wochenschrift*.

The size of the heart was measured immediately before entering the bath, and a remeasurement was made after bathing. The results obtained appeared almost uniform. After a hot bath the size of the heart was considerably diminished; at the same time there was a marked increase in the pulse rate; while, on the other hand, after a cold bath, the size of the heart increased, the skin became pale, and there was a diminished pulse frequency.

These observations are extremely interesting in connection with the Nauheim baths, which are held in high esteem by modern physicians. Orthodiagrams show a marked diminution in the size of the heart as a result of Nauheim baths, natural or artificial, even in water with a temperature from 87 to 95 degrees.

Dr. James McKenzie, whose work on "Diseases of the Heart" has recently been published, seems to regard as unmerited the reputation which the Nauheim baths enjoy among the medical profession. His observations, however, at Bad-Nauheim appear to have been very limited and it would not seem that he had used either the X-rays or the orthodiagrams, though he mentions that there was a slowing in the heart's action in several cases under observation. This he considers as merely a temporary effect, and he states that this conclusion was arrived at by the fact that when he returned home he found his pulse rate and that of a friend slowed in the same

manner when they laid in a bath of ordinary tap water at a temperature of 89 degrees. One is naturally not impressed by deductions made without proper scientific investigation.

Professor Jurgensen, of Tübingen, speaking of the resistance movement and of the baths, has written: "I can personally testify that the Schott method of gymnastics is capable in a short time of considerably diminishing the cardiac dullness, and at the same time strengthening the results. These results practically admit of no other interpretation than that given by Augustus Schott, the originator of the method, namely, that the over-distended heart is relieved of its burden.

. . . I have had no opportunity of observing the immediate effect of the baths on the heart; but there is no reason to doubt the Schott brothers' statements, and besides they have been confirmed by prominent physicians—Grainger Stewart, Holman, Saunby"; also by Thorne, Newton Heineman, Broadbent, Baldwin, Gibson, McGregor Robertson, Satterthwaite, Lucien Heftler, Peabody, Francis, Strumpell, Lauder Brunton, and other brilliant and competent investigators.

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### MEDICAL MEN AND LEGACIES FROM PATIENTS.

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When a grateful patient leaves a bequest by will to his medical attendant, the position of the latter is sometimes awkward. The disappointed relatives can easily bring against him the charge of undue influence, which, no matter how honorable the physician may be, is sometimes difficult to rebut. We understand that the French law treats all bequests from a patient to a doctor as null and void.

The *British Medical Journal*, in an editorial on this subject, refers to a case recently tried in England. Dr. William Dunn, now Medical Officer of Uppingham School, but formerly a practitioner in Battersea, had among his patients there a lady, who, when she first came under his care, was living apart from her family, in very poor circumstances. Besides advising her as to her health, Dr. Dunn lent her money, and



his wife, Mrs. Dunn, showed her much kindness. Later, the patient inherited a considerable sum of money from a sister, and then commenced making different wills, sometimes independently, sometimes through solicitors. The terms in these wills varied, but one feature stood out clearly in them all—the wish to benefit Dr. Dunn, who had befriended her in her evil days. It appeared from evidence at the trial that she was given to drink, but there was no proof of undue influence by Dr. Dunn or his wife. It was an important point in the case that Dr. Dunn ceased to have charge of her a considerable time before her death. The trial lasted three days, when the parties came to terms, and the doctor received his bequest. The *Journal* concludes this article by expressing the opinion that “Dr. Dunn is perfectly entitled to a legacy which was obviously intended by the poor woman to be a reward for professional and other services rendered by him to her when she was poor and friendless.”

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### MEDICAL EXPERTS.

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Nothing has brought the medical profession into greater disrepute than the conduct of physicians, called medical experts, in giving their testimony before the courts in certain classes of cases.

We learn from the *New York Medical Journal* that the efforts of the medical profession, with those of the legal profession, are likely to lessen the evils referred to in the near future. The Legislature of that State will be petitioned to pass a bill authorizing the Supreme Court to appoint not more than sixty physicians from their respective judicial departments, who should be qualified to act as medical experts, and that the expense of their services should be borne by the county in which the action was tried.

From the legal side, we find the following expression of opinion in certain daily papers of New York State: It is apparent to all that theoretically the expert is the scientist

interested solely in facts, and should retain freedom of judgment and liberty of speech, and that no one should be permitted to distort, pervert or misrepresent his testimony. Scientific open-mindedness is of most importance where the expert entirely depends for his emolument upon the good graces of contending parties, and largely is without the recognition and protection of the court. Nor is the Bar blameless. Not only do some of its members connive at the hiring of corrupt and incompetent so-called experts, but they artfully and selfishly cultivate, and are largely responsible for, the fallacy that a witness is to be discredited if he can be disconcerted. Thus the art of cross-examination, so potent for good when fairly and properly used, plays havoc with hard-earned and well-deserved reputations, in the hands of lawyers whose sole ambition is to win. The *Journal* concludes its article as follows: "The two professions of law and medicine having joined forces for the attainment of so lofty a purpose as that of purging themselves of complicity in turning judicial inquiries into farces, we may well hope and expect that there will soon be an act of legislation that will prove effective in bringing about the desired result, even if the precise measures at first recommended turn out to call for amendment as to some matters of detail."

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### ANCIENT MEDICINE.

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The history of Ancient Medicine has not been studied as well as it deserves. Those who have written on this subject in the past have frequently laid too much stress on the mistakes and oddities of ancient physicians, instead of telling us the best that could be learned about them.

Dr. John Comrie, the first lecturer on the history of medicine in the University of Edinburgh, has recently delivered a course of eight lectures upon Ancient Medicine. He has pointed out that the commonly accepted saying that ancient medicine was a mass of false traditions and childish reme-

dies was quite erroneous. With all their faults and shortcomings, there were among physicians of even the most distant past men of skill and noble character.

With regard to Assyrian medicine, the medical procedures of the inhabitants of the Euphrates basin were closely bound up from about 1500 B.C. onward with those of Egypt. In Babylon a doctor was mentioned as early as 2700 B.C. Rule number nine in their code referred to the remuneration of physicians for the treatment of various diseases. The social position of the medical profession in ancient Egypt has given rise to considerable discussion. The physicians belonged to the priestly class, though not priests themselves. Many of the physicians of early Egypt reached a high place as the friends and counsellors of Pharaoh, and one living apparently in the time of the Third Dynasty (3500 B.C.), was, in later ages, even deified and worshipped in Memphis and other places. All these facts suffice to show that the service of a class trained in the art of healing was greatly sought in the lands where the dawn of our civilization began.

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### MILITARY TRAINING IN UNIVERSITIES AND PUBLIC SCHOOLS.

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The question of establishing another unit is now being considered by the President, heads of colleges and a committee appointed for that purpose.

Lieut.-Col. Fotheringham, at the request of those interested, went to Ottawa, and interviewed on the 24th and 25th of February last the Honorable the Minister of Militia, the Chief of the General Staff, and other members of the Military Council.

After he returned, he prepared and presented a very interesting report, in which he said he found all in full sympathy with the project. Both Queen's and McGill Universities are moving independently in the same direction at the present time. The matter has been discussed at headquarters as part



of the plans of the Minister, looking to the general introduction of physical training and drill into the public schools and other educational institutions of the country. It is his desire that if undertaken it should be a part of the University scheme of physical training for its undergraduates, and by those supported by the authority of the University. The views of the military authorities are to some extent based upon the regulations of the Army Act of Great Britain as to officers' trained corps at the British universities. They will probably give to other university corps a status slightly different from that of ordinary militia units as to availability in service, in rites, etc., and liability or readiness for sudden duty during the vacation months.

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#### NOTE.

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Dr. W. C. Usher was recently fined in Colborne \$25 for practising in the office of Dr. W. A. Sargent without a license. The Colborne *Express* expresses the opinion that this action was taken against Dr. Usher on the ground that he was a foreigner. We may say that we believe the *Express* is not correct in this statement, but we think it fair to Dr. Usher to repeat certain statements made in that newspaper. Dr. Usher is a native of Northumberland County, having been born at Codrington, and is a son of Mr. and Mrs. William Usher, now of Colborne. He attended high school at Brighton, where he won a gold medal and a scholarship of \$130. He entered Queen's University, Kingston, when 16 years of age, and after his fourth session graduated M.A., winning a gold medal. When a little over 21, he graduated in medicine, and passed the General Council examination the same year. After this he took post-graduate work at Harvard, and then in competition with twenty-five graduates he headed the list in the competition for the position of House Surgeon at the Rhode Island Hospital, at Providence.

It may be added that Dr. Usher, in taking charge of Dr. Sargent's practice for a few days, without any hope of reward, had no idea that he was doing an unlawful act. We understand that the representatives of the Council, when they learned the circumstances, made the fine as light as possible.

## ASSOCIATION OF MEDICAL OFFICERS OF THE MILITIA OF CANADA.

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The Annual Meeting was held at Ottawa, on the 25th and 26th February. President, Colonel Ryerson, M.R.O., Knight of Grace of St. John of Jerusalem.

The programme was as follows:

### THURSDAY, FEBRUARY 25TH.

1. President's Address.
2. Address by Major-General Sir Percy Lake, K.C.M.G., Inspector-General.
3. Election of Officers.
4. General Business.
5. "Impressions of a Month at the Royal Army Medical College, London."—Lieut.-Col. Fotheringham, P.M.O., M.D. No. 2.
6. Notes from Reports on the Russo-Japanese War.—Lieut.-Col. Jones, D.G.M.S.

The annual dinner was held at the Laurentian Club, and was a success from every point of view.

### FRIDAY, FEBRUARY 26TH.

11 A.M.

1. "The Regimental Medical Officers."—Lieut.-Col. King, 5th R. G.
2. Report of a case from the Dominion Arsenal, Quebec—"Importance of Conservative Surgery in Minor Cases." Major G. G. Turecott, A.M.C.
3. The New Field Water Analysis Case.—Major Drum, P.A.M.C.

3 P.M.

1. "Interior Economy of a Field Ambulance."—Lieut.-Col. Fenton, A.M.C., O.C. No. X. Field Ambulance.
2. "Military Instruction as a Factor of the Educational System."—Major C. A. Hodgetts, A.M.C.
3. "The Routine Work of the Sanitary Officer at Camps of Instruction."—Captain Clark, P.A.M.C.
4. "Military Gymnastics."—Captain Ashton-Fletcher, 2nd Q.O.R.
5. "The Trek of a Field Ambulance."—Major T. B. Richardson, A.M.C.

Notice of motion given by Lieut.-Col. Jones, P.A.M.C., at the last Annual Meeting:

"That this Association of Medical Officers of the Militia of Canada expresses its approval of the scheme of forming, in Canada, an association having for its object the development of Ambulance and Red Cross Work in the Dominion."

This was adopted.

The next annual meeting will be held at Ottawa, February 24th and 25th, 1910.

The following officers were elected for the ensuing year: President, Lieut.-Col. H. S. Birkett, Montreal; Vice-Presidents, Major Rankin, M.P.; Lieut.-Col. G. S. Rennie; Major Kilborn; Major A. T. Shillington; Major E. R. Brown; Captain Williams; Major E. A. LeBel; Lieut.-Col. Murray MacLaren; Lieut.-Col. Blanchard; Captain McTavish; Lieut.-Col. Jenkins; Captain S. W. Hewetson; Secretary-Treasurer, Lieut. T. H. Leggett, Ottawa.

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### PROVISIONAL PROGRAMME FOR THE ANNUAL MEETING OF THE ONTARIO MEDICAL ASSOCIATION.

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TUESDAY, JUNE 1ST, 1909.—MORNING SESSION.

*Medical Section.*—10 a.m.

1. Paper—A. Sangster, Stouffville.
2. "Grave's Disease"—H. B. Anderson, Toronto.
3. Paper—E. Ryan, Kingston.
4. "Differential Diagnosis of Cerebellar Tumors"—Ernest Jones, Toronto.
5. "A Case of Opium Poisoning"—A. Taylor, Goderich.
6. Paper—R. J. Dwyer, Toronto.

*Surgical Section.*—10 a.m.

1. "Hodgkin's Disease"—W. J. O. Malloch, Toronto.
2. Paper—H. E. Hayd, Buffalo.
3. "Surgical Treatment of Gall Stones"—C. F. Moore, Toronto.
4. Paper—J. W. S. McCullough, Alliston.
5. "A Case of Appendicitis"—Everett Hicks, Port Dover.



*Section of Preventive Medicine.*—10 a.m.

1. Paper—J. C. Connell, Kingston.
2. Paper—W. R. Hall, Chatham.

*Section of Gynecology, Obstetrics, and Diseases of Children.*

1. "Pernicious Vomiting of Pregnancy"—J. M. Slemons, Baltimore.
2. "Use of Hyoscine and Morphine in Obstetrical Work"—C. H. Vrooman, Winnipeg.
3. "Case in Practice"—W. Spankie, Wolf Island.
4. Paper—S. A. Lockhart, Montreal.

*General Session.*—2.30 p.m.

1. President's Address—H. J. Hamilton.
2. "Acute Septic Peritonitis"—J. B. Deaver, Philadelphia.

TUESDAY EVENING, 8.30 P.M.

1. Paper—L. Emmett Holt, New York.
2. Paper—J. Alder, New York.

WEDNESDAY, JUNE 2ND, 1909.—MORNING SESSION.

*Medical Section.*—9.30 a.m.

1. "Symposium, Present Day Therapeutics."
  - (a) "Nihilism in Therapeutics"—J. T. Fotheringham, Toronto.
  - (b) "Nostrum Evil"—J. Ferguson, Toronto.
  - (c) "Tuberculin Therapy"—J. H. Elliott, Toronto.
  - (d) "Bier's Hyperæmic Treatment"—S. H. Westman, Toronto.
  - (e) "Recent Advances in X-Ray and Radium Therapeutics"—C. R. Dickson, Toronto.
2. "Therapeutics of Digitalis"—V. E. Henderson, Toronto.
3. Paper—W. B. Thistle, Toronto.

*Surgical Section.*—9.30 a.m.

1. Paper—C. B. Shuttleworth, Toronto.
2. "Repair of 3 cm. Defect of the Median Nerve, due to old Injury. Almost Complete Restoration of Function"—Ingersoll Olmstead, Hamilton.
3. Paper—J. S. Wardlaw, Galt.
4. Paper—R. R. Wallace, Hamilton.

*Section on Diseases of Eye, Ear, Throat and Nose.*—9.30 a.m.

## 1. Exhibition of Cases.

Exhibition of Specimens, Instruments, etc.

Demonstration of New Methods.

## 2. Papers—

(a) "Influence of Light Rays on the Retina"—J. N. MacCallum, Toronto.

(b) Paper—W. F. Chappell, New York.

(c) "Bronchoscopy," etc.—D. J. G. Wishart, Toronto.

*Section of Gynecology, Obstetrics and Diseases of Children.*—9.00 a.m.

1. "Diagnosis of Genito-Urinary Diseases of Women."—Ellice McDonald, New York.

2. "Toxemia of Pregnancy"—H. M. Little, Montreal.

3. Paper—A. E. McColl, Belleville.

4. "Ultimate End of Surgery, with Special Reference to the Surgery of the Pelvic Organs in Women"—W. P. Manton, Detroit.

## WEDNESDAY AFTERNOON.—GENERAL SESSION, 2.30 p.m.

1. "Copious Water Drinking in the Treatment of Typhoid Fever"—E. F. Cushing, Cleveland.

## THURSDAY, JUNE 3RD, 1909.—MORNING SESSION.

*Medical Section.*—9.30 a.m.

1. Paper—J. Fisher, Stratford.

2. Paper—J. A. Bauer, Hamilton.

3. "Gastrogenous Diarrhœas"—Graham Chambers, Toronto.

4. "Landry's Paralysis"—R. G. Kelly, Watford.

5. "Results in Vaccine Treatment of Certain Bacterial Diseases"—G. W. Ross, Toronto.

*Surgical Section.*—9.30 a.m.

1. "Moveable Kidney"—W. McKeown, Toronto.

2. "Intussusception"—J. M. Elder, Montreal.

3. Paper—J. M. Rogers, Ingersoll.

4. Paper—Hadley Williams, London.

*Section of Gynecology, Obstetrics and Diseases of Children.*

1. Symposium—Slightly Contracted Pelvis in Pregnancy and Labor.

2. Paper—K. C. McIlwraith, Toronto.
3. Paper—A. Jackson, Bolton.
4. Paper—Allen Baines, Toronto.
5. Paper—F. Fenton, Toronto.

*General Session.*—2.30 p.m.

Address in Medicine—Prof. Wm. Osler, Oxford, Eng.

## Personals.

Dr. W. P. Caven returned from Atlantic City, March 14th.

Dr. Weir Mitchell, of Philadelphia, celebrated his 80th birthday on February 15th.

Dr. E. M. Gideon (Tor., '07), has passed the necessary examination for L.R.C.P. (Eng.).

Dr. J. T. Wright (Tor., '01), who was formerly at Plevna, is now practising at Manitou, Man.

Dr. J. M. Piper, of Toronto, has left for a Mediterranean trip. He expects to return early in August.

Dr. D. G. McIlwraith (Tor., '01), of Binbrook, has been appointed Associate Coroner for the County of Wentworth.

Dr. C. E. Hill (Tor., '08), has been appointed House Surgeon of the New York Hospital for a term of two years.

Dr. Margaret S. Wallace (Trin., '98), has been appointed Professor of Medicine in the College of Medicine for Women, North India.

Drs. Gibb Wishart and Perry Goldsmith attended a meeting of the Laryngological Association, held in Chicago the last week in February.

Dr. and Mrs. Wm. Sloan celebrated the fiftieth anniversary of their wedding, March 4th, at their residence, 191 Dunn Avenue, Toronto.

Dr. J. F. Hazlewood (Tor., '07), after spending fifteen months in the Erie County and Buffalo State Hospital, is now working in certain hospitals in New York.

Dr. Robert Y. Parry, Hamilton, has been appointed Associate Coroner for the County of Wentworth, and Dr. Ransom H. Green, of Embro, Associate Coroner for the County of Oxford.



Dr. Wakley, editor of the *Lancet* (English), was seriously indisposed during the months of January and February. The *B. M. J.* says that his condition, March 6th, caused his friends much anxiety.

Dr. G. D. Porter (Tor., '94), has been appointed travelling secretary to the Canadian Association for the Prevention of Tuberculosis, and is delivering a series of lectures in the towns of Ontario.

Dr. A. T. Hobbs, Superintendent, Homewood Sanitarium, Guelph, is in Europe taking up the study of mental and nervous diseases. He will spend some time in Berne, Munich, Vienna, Berlin and London, returning to Canada early in July.

Dr. A. D. Blackader delivered an address on "The Respiratory Spasm of Infancy" before the Philadelphia Pediatric Society, Tuesday evening, February 9th. At the close of the meeting the members tendered Dr. Blackader a reception in the Hotel Walton.

Dr. Herbert J. Hamilton, of Toronto, was the victim of a serious accident on the night of March 11th. A little after ten o'clock he stepped into a cab, in front of his own door, intending to visit a patient. The driver turned somewhat suddenly on to the street car track, and a trolley car collided with the cab. Dr. Hamilton received a severe shock together with a fracture of two ribs. He left this city March 26th for Old Point Comfort, where he will remain for a few days.

Dr. T. G. Roddick, formerly Dean of the Medical Faculty of McGill University, at a recent banquet of the medical students, referred to his efforts to secure Dominion Registration. The law still remains on the statute books, and six of the Provinces have stated that they are ready to avail themselves of the privileges of the Act. The other three have not yet done so, and appear to be watching each other. He hoped the day would soon arrive when all the Provinces would signify their willingness to have the Act go into operation.

## Obituary.

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### PETER HORRACKS, M.D., F.R.C.P. (Lond.)

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Dr. P. Horracks, Senior Obstetric Physician to Guy's Hospital, London, died February 28th, aged 56.

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### DUNCAN A. STEWART, M.B.

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Dr. Stewart, of Ailsa Craig, died December 1st, 1908. He graduated from the University of Toronto in 1877.

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### DAVID JAMES HAMILTON, LL.D., M.B., F.R.S.

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Dr. D. J. Hamilton, formerly Professor of Pathology in Aberdeen University, died February 19th, aged 60.

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### DANIEL YOUNG, M.D.

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Dr. Young, formerly a practitioner of Adolphustown, died at 96 Simpson Avenue, Toronto, February 22nd, aged 77.

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### CHAS. H. McKENNA, M.B.

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Dr. McKenna died in Dublin, Ont., January 1st. He graduated M.B. from the University of Toronto in 1899, and was for some time house surgeon at St. Michael's Hospital, Toronto.

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### THOMAS W. CARLAW, M.D.

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Dr. Carlaw, of Campbellford, died November 5, 1908, aged 45. He graduated from Trinity University in 1893, then went to Campbellford, and continued in practice in that town until a short time before his death.

**W. T. BULL, M.D.**

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Dr. W. T. Bull, one of the most distinguished surgeons of New York, died of cancer, February 22nd, aged 60. He was Professor of Surgery at the College of Physicians and Surgeons of Columbia about 20 years.

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**DENISON DeLOSS CARDER, M.D.**

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Dr. DeLoss Carder died at his home in Blyth, February 18. After receiving his license to practise in Ontario, in 1870, he practised for a short time at Delhi, and then removed to Listowel, and about twenty years ago moved from Listowel to Blyth.

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**WILLIAM EDMUND BURGAR, M.D.**

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Dr. W. E. Burgar, after an illness of about seven months from heart disease, died at his home in Welland, March 14th. He received his medical education in Kingston, and graduated from Queen's University in 1868. He was highly respected by all classes in the Niagara Peninsula.

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**LIEUT.-COL. SINCLAIR H. GLASGOW, M.D.**

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We have to announce with deep regret the death of Dr. Glasgow, of Welland, which occurred March 13th. As announced in the March issue, he underwent a minor operation on his foot in February last. Nothing further was heard about his illness by his friends outside of his own neighborhood until the announcement of his death, caused by diabetes, appeared in the press. In addition to laborious work in his profession, he for many years took an active interest in public matters. He was a Reformer in politics, and took a very great interest in military affairs. At the time of his death he occupied the following positions: President of the Ontario Medical Council, Lieut.-Colonel of the 2nd Dragoons, and Division Surgeon of the Grand Trunk R.R. He received his medical education in the Toronto School of Medicine, and graduated M.B. from the University of Toronto, and M.D. from Victoria University, in 1878. He was born in Stamford Township on March 20th, 1855, and had, therefore, nearly completed his fifty-fourth year.



## Book Reviews.

THE CHANGING VALUES OF ENGLISH SPEECH. By Percy Husted Bell. Hinds, Noble and Eldredge, Publishers, 31-33-35 West 15th Street, New York.

This work is the second of the kind from the pen of Dr. Bell, and will be found interesting to any one interested in etymology. Unfortunately the title does not give a fair impression of the contents, for the author wanders all over the field of language study.

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NOSE, THROAT AND EAR. Text-book of Diseases of the Nose, Throat and Ear. By Francis R. Packard, M.D., Professor of Diseases of the Nose and Throat in the Philadelphia Polyclinic Hospital and College for Graduates in Medicine; Aurist to the out-patient department of the Pennsylvania Hospital. Pages, 369; plates, 3; illustrations, 135. Philadelphia and London: J. B. Lippincott Company.

As announced by the author, this volume is intended to present the essentials upon diseases of the nose, throat and ear to students and general practitioners, in such a manner as will be acceptable to them. During recent years many books of a similar character have been placed upon the market, but probably none have received a warmer welcome than will be extended to this of Dr. Packard.

In so far as is consistent with the space to which he has confined his book, the author has dealt very fully with his subject, giving due weight to each division; bringing the etiology, diagnosis and treatment of each disease down to the present time.

The subject-matter is clearly and succinctly arranged; in some cases, briefly, almost to a fault; while the illustrations are satisfactory, very many of them being original.

On one point the author has departed from the usual run of text-books. He has recognized the intimate relationship which so frequently exists between diseases of the eye and the nose; and has briefly outlined their connection. This is a laudable feature, and it is hoped that future authors upon laryngology will not ignore this fact.

While the work will be a creditable addition to the special-

ist's library, it should prove of inestimable value to the general practitioner.

The clearness and finish of the type and illustrations, together with the excellence of the binding, are highly creditable to the publishers of the work.

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**SOURD MILK AND PURE CULTURES OF LACTIC ACID BACILLI IN THE TREATMENT OF DISEASE.** By George Herschell, M.D., London, Fellow of the Royal Society of Medicine; late Senior Physician to the National Hospital for Diseases of the Heart; Physician to the West End Hospital for Diseases of the Nervous System, and Physician to the Farringdon General Dispensary. Second impression; ninth thousand. London: Henry J. Glaisher, 57 Wigmore Street West. Chicago: W. T. Keener & Co., 90 Wabash Avenue. 1909.

This monograph appeared in *The Lancet*, of August, 1908. It has been enlarged and is given to the PRACTITIONER as a guide for the use of Lactic Acid Ferments in Disease. Dr. Herschell states that the book is not exhaustive of the subject, but to us it appears very complete and useful. It is divided into three chapters. The first deals with auto-intoxication and intestinal putrefaction. The second on the selection and preparation of Lactic Acid Ferments for use in practice, and the third on the administration of Lactic Acid and Ferments in disease.

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**BACTERIAL FOOD POISONING.** A Concise Exposition of the Etiology, Bacteriology, Pathology, Symptomatology, Prophylaxis, and Treatment of So-called Ptomaine Poisoning. By Prof. Dr. A. Dieudonné, Munich. Authorized translation, edited, with additions, by Dr. Charles Frederick Bolduan, Bacteriologist, Research Laboratory, Department of Health, City of New York. 8vo, 128 pages. Cloth. Prepaid, \$1 net. New York: E. B. Treat & Co., Medical Publishers, 241-243 West 23rd Street.

Published less than a year ago, Prof. Dieudonné's manual on "Bacterial Food Poisoning" has already become favorably known as one of the best presentations of the subject. In the present translation, the editor has incorporated descriptions of

a number of recent outbreaks of food poisoning, elaborating upon the prophylaxis applicable to American conditions, and also going more fully into detail on the subject of treatment. He has slightly rearranged the material, so that paragraph headings could be inserted and the subject of all chapters discussed in the same sequence. An index has also been added to facilitate reference, and this, with the other changes and additions, greatly enhances the value of the volume.

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DIATHESIS AND OCULAR DISEASES. By A. Maitland Ramsay, M.D., Ophthalmic Surgeon, Glasgow Royal Infirmary; Lecturer on Eye Diseases, etc., University of Glasgow; author of "Atlas of External Diseases of the Eye," etc. London: Bailliere, Tindall and Cox, 8 Henrietta Street, Covent Garden. 1909.

This is a most suggestive book. It is clinical in character, therefore of especial value to the busy practitioner, whether he be the family physician or the specialist. To the family physician who may be unable to call for an expert opinion on his eye cases, this book will prove most useful. He will read and reread it, getting information upon the diseases touched upon, which he might find it difficult to obtain in the larger treatises. And the specialist will enjoy it, and benefit by its perusal, for the "point of view" renders the author's remarks both interesting and instructive. The table of contents shows the scope of the book: The Neurotic Diathesis, Ocular Headache, Asthenopia; The Arthritic Diatheses, Rheumatic Form, Gouty Form, Inflammation of the Conjunctiva and of the Sclerotic; Inflammation of the Uveal Tract, Iritis, Choroiditis, Irido-Choroiditis; Inflammation of the Retina and Optic Nerve; Hemorrhagic Retinitis, Albuminuric Form, Glycosuric Form; Toxic Amblyopia and Retro-bulbar Neuritis; Glaucoma.

Facility of reference is secured by a good index. The book contains 184 pages and 17 plates.

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DISEASES OF THE DIGESTIVE CANAL (ESOPHAGUS, STOMACH AND INTESTINES). By Dr. Paul Cohnheim, specialist in diseases of the stomach and intestines in Berlin. From the second German edition. Edited and translated by Dudley Fulton, M.D., Lecturer on Medicine, University of South-



ern California, Los Angeles. Illustrated. Published by J. B. Lippincott & Co., Philadelphia and London. Dedicated to Dr. I. Boas, of Berlin.

This volume contains about 375 pages of subject matter, and is illustrated by a number of diagrams and illustrations, a number of the latter being reproduced from original photographs.

The manner in which the subjects are treated is distinctive, the discussions being approached from the view of the clinician solely, each point described being as far as practicable illustrated by a short clinical account of a case or cases occurring in the practice of the author, who throughout emphasizes the anamnesis, which in his opinion is the most important part of the examination of a gastro-intestinal case.

We can heartily recommend this work especially to the general practitioner. It is concise, clear, and eminently practical throughout, laboratory methods being treated more as a means of confirming than of reaching a diagnosis, its range of usefulness being, in our opinion, thus greatly widened.

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THE PRINCIPLES AND PRACTICE OF DERMATOLOGY. Designed for Students and Practitioners. By William Allen Pusey, A.M., M.D., Professor of Dermatology in the University of Illinois; Dermatologist to St. Luke's and Cook County Hospitals, Chicago; Member of the Dermatological Association. With one colored plate and three hundred and sixty-seven text illustrations. New York and London: D. Appleton & Company.

It is divided into sixteen sections, as follows: 1. The Principles of Dermatology; 2. Practices of Dermatology; 3. Angioneurotic Dermatoses; 4. Inflammations; 5. Dry Scaly Inflammatory Dermatoses; 6. Hemorrhages; 7. Infectious Diseases of the Skin; 8. Dermatoses due to Animal Parasites; 9. Hypertrophies; 10. Atrophies; 11. Anomalies of Pigmentation; 12. Neuroses; 13. New Growths; 14. Diseases of the Appendages of the Skin; 15. Diseases of the Mucous Membranes.

This able work, a volume of one thousand pages, is replete with excellent illustrations, and represents the present status of Dermatology. It is comprehensively and practically written, and shows that the author has made a deep study of the subject, and has a thorough knowledge of all affections of the skin.

GREEN'S ENCYCLOPEDIA AND DICTIONARY OF MEDICINE AND SURGERY. Edited by J. W. Ballantyne, M.D., F.R.C.P.E. Vol. X. Thiersch-Zymotic. Published by William Green & Sons, Edinburgh and London.

This, the tenth, is the last volume of this excellent work. Its general arrangement is in concordance with those which preceded it, and among its editors such names as Fowler, Bland-Sutton, Edward Owen, speak for the standard which was set and has been maintained throughout the Encyclopedia.

The sections which are outstanding are those on the Thyroid, Tuberculosis, Toxicology, Urinalysis, the Uterus, Vision, etc. The same system of cross-references has been preserved, greatly facilitating search after special points and subjects.

We again beg to congratulate Messrs. Green & Sons on their excellent production, and on its satisfactory completion.

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#### **Sanitarium Chart.**

We have received from Messrs. Bale, Sons and Danielsson, 83 Gt. Titchfield St., London, W., England a very convenient chart; designed by the superintendent of a large sanitarium, so that particulars of each case may be kept uniformly from day to day for three months, and be available at any moment for reference. They can be obtained singly for 1s. 3d. per dozen, or in books of twenty-five at 2s. 3d.

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## **Correspondence.**

1424 E. Ravenswood Park, Chicago, Ill.

Editor Canadian Practitioner and Review,  
Toronto, Canada.

Sir,—I am collecting material for a paper on atropine as a hemostatic, and would be obliged to any of your readers who would send me notes of their experience with this remedy. I am particularly anxious to receive adverse reports, as well as those favoring the remedy.

Yours truly,  
F. WAUGH.

## Selections.

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### **Surgical Suggestions.**

Strong antiseptic solutions should be avoided in dressing scalp wounds. For "wet dressings" Thiersch's (boro-salicylic), or Burow's (aluminum acetate) solution is sufficiently antiseptic.

Sudden one-sided diminution of hearing after bathing may indicate nothing more serious than water in the ear, or a plug of wax which has swelled up and obstructed the canal. If no means of syringing is at hand, the instillation of ether and alcohol, equal parts, will dry up the plug and often cause it to disintegrate, with a corresponding improvement in hearing. Swollen seeds, peas or beans in the external canal can be treated similarly.

Three or four drops of peroxide of hydrogen in the ear, followed five minutes later by thorough syringing with a solution of boracic acid or bicarbonate of soda, will readily remove impacted cerumen.

A hypodermic injection of morphine, gr. 1-6, about a half hour before a major eye operation, such as cataract or iridectomy, will keep the patient quiet, and make the extraction calm and free from pain. There is no danger of sudden motion of the head, and the technic is more exact and rapid.

A large dose of antipyrine or quinine will often clear up a frontal headache due to acute catarrh of an accessory sinus, by its astringent action on the mucous membrane, and the consequent improvement of drainage.

Always examine a child suffering from chorea for the presence of adenoids. The removal of the growths in the pharynx may cure a mild case.

Repeated attacks of "indigestion," not obviously due to some other condition, should awaken the suspicion of gallstones. Most of the patients operated upon for cholelithiasis give a history of having been treated for a long time for "dyspepsia," and in many of these cases the correct diagnosis might earlier have been established.

A moderately hard, palpable mass in the right iliac region is often diagnosed as acute appendicitis, with inflamed omen-



tum around the appendix. But ileocecal tuberculosis, with inflammatory exudate, should be kept in mind.

The location of the head zone will often decide whether a case is one of acute appendicitis, with inflammation of the serosa, or acute salpingitis. If the head zone commences at the level of the umbilicus, extends over the right lumbar region and to just below Poupart's ligament, it is probably acute appendicitis. If the head zone begins two or three inches below the umbilicus, with a broad base on the abdomen, and extends to a single point midway between the hip-joint and the knee, the case is probably one of acute salpingitis.

The sudden acute onset of abdominal pain, with tenderness over the appendix region, but with rigidity of the right rectus low down, is very suggestive of acute salpingitis. The diagnosis is further confirmed if there is high temperature and extremely high leucocyte count (20,000-40,000; polynuclears, 80-90 per cent.), even though vaginal examination be negative.

The palpation of a pulsating vessel in the vaginal fornix of a woman who has skipped a menstrual period, will often give the clue to a possible ectopic gestation.

An abscess of the right ovary may give the same signs and symptoms as acute fulminating appendicitis. If an incision for appendicectomy is made, it should be of sufficient length and low enough down to allow of careful examination of the right adnexa.

A tumor on either side of the vertebral column, with a slight bulging in this region and scoliosis, is often a perinephric abscess. But if cord symptoms are present, a sacromatous growth of the vertebrae should be kept in mind.

A synovitis that persists, despite careful treatment, should arouse suspicion of tuberculosis.

One should inquire carefully for the history of the application of carbolic acid to a wound, especially of the finger or toe, when a gangrene with a distinct line of demarcation has developed.

When exploring for a needle or other foreign body, the finger-tip is often far more useful than a probe. It must be remembered, too, that strands of fascia often impart to a probe "the feel" of a foreign body. Cutting and picking at these deceptive strands of tissue soon distort the field of operation, and destroy important relations. It is extremely desirable to

conduct a systematic and cleanly dissection when seeking a foreign body.

Nurses should be instructed not to massage the limbs of patients who complain of pain after operation or confinement, without the order of the attending surgeon. If phlebitis and thrombosis are present, the manipulation may loosen a clot and cause instant death.

If a patient complains of sharp pain in the big toe, examine the urine for albumin or sugar, in order to exclude a diabetic or nephritic condition.

—“*Seven Hundred Surgical Suggestions.*”

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### **Euresol in Seborrhea.**

Charles J. White, Boston, Mass., referring in the course of an article on modern dermatological pathology, to new external drugs, writes that in seborrhea, euresol (resorcin mono-acetate) replaces resorcin to great advantage, is far less irritating, and discolors gray hair but little. Combined with corrosive sublimate, formic acid, and alcohol, he says that euresol constitutes the best hair wash that he has ever found for curing dandruff.—*Journal Cutaneous Diseases.*

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### **Digipuratum: a New Preparation of Digitalis.**

Digitalis is one of the most valuable drugs we possess, yet unfortunately its action is very unreliable, owing to varying age of the leaves and uncertain percentage of active ingredients. Recently a purified extract has been placed upon the market under the name “digipuratum.” It is standardized to a definite strength; is free from digitonin, but contains both digitoxin and digitalin. The active ingredients in this extract are insoluble in cold water and acids, but very easily soluble in dilute alkalies, so that a uniform absorption can be expected from the intestines. The strength of the preparation is such that 0.1 Gm. corresponds to 0.1 Gm. of active leaves.

According to the extensive investigations of C. Hoepffner and A. Fraenkel, digipuratum always shows a prompt and reliable action. The action upon pulse and diuresis appears rapidly, (after 0.4. Gm. in twenty-four hours). There is reported to be much less disturbance of the stomach than with other preparations possessing the same strength. Other bad after-effects were not seen, so that the authors only have the highest words of praise for the drug.—*Muench. med. Woch.*

## Miscellaneous.

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### The Medical Fee.

Who shall say what a man may do in gratitude for a life saved? The value of the service rendered, if measured in dollars, would depend upon the commercial value of the life, or its value in other respects to the community or country or even the world.

The fee of the general practitioner is inevitably determined by the financial standing of the community in which he practises, and the law of nature and economics will, as a rule, put the right man in the right place. It naturally follows that the best equipped men gravitate to the centres which appreciate and demand high standards, and expect to pay commensurately for them. Among these able-to-pay people, however, there is an occasional protest, and insinuation that the doctor is commercial and mercenary, exacting fees beyond the value of his professional service. A pertinent case of this kind is cited by Dr. John L. Hildreth, of Massachusetts, in the Annual Discourse before the Massachusetts Medical Society, in June, 1906, as follows: "A New York surgeon asked \$1,000 for an operation for removing an appendix. The mother of the patient offered \$600; but the surgeon protested, cited testimony of brother physicians to prove that the fee was not excessive, and finally received the balance. The letter which enclosed the last check was as follows: 'My discussion with you has been a friendly one, and so you will not, I am sure, suspect me of acrimony when I say that my feeling about the present excessive charge of surgeons is a general one, and the reflection of a sentiment that is everywhere one of surprise and dissatisfaction. We do not question your ability, but we feel you make us pay too dear for it.'"

This lady wrote under sincere conviction that she had been grossly overcharged, and she gave the impression that the surgeon used his professional skill as a mercenary lever to extort unearned dollars from his patient's purse. She did not plead financial inability to pay the bill, which was simply at the rate current in her locality and sphere; and she seemed oblivious to the fact that the surgeon who operated had unquestionably performed many difficult operations upon charitable subjects, aggregating thousands of dollars in value, to render himself proficient, gain prominence in his profession, and thus prove his qualifications to meet the demands of just such people.



The surgeon is not the kind of man this complaint would make the world believe him. He is the hardest-worked and most unselfish of men; ever ready to do charity, night and day, and bestowing the same devoted skill and attention upon the suffering poor as upon the rich. A quotation from "The Making of a Man" well illustrates this: "The great French surgeon, M. Bourdon, was sent for one day to perform a critical operation upon Cardinal Du Bois, the Prime Minister under the old monarchy. 'You must not expect, sir,' remarked the Cardinal upon the surgeon's entrance, 'to treat me in the same rough manner in which you treat the poor miserable wretches at your hospital of the Hôtel Dieu.' 'My lord,' replied Bourdon, proudly, 'every one of those miserable wretches, as Your Eminence is pleased to call them, is a Prime Minister in my eyes.'"

The possession of great wealth undoubtedly carries with it heavy obligations, and every man should expect to pay according to his ability. The legal fee is graded according to the sum involved, or the value of the liberty or life jeopardized. Why should not the same principle obtain in medicine?

One of our foremost American surgeons has said: "The fixing of a fee correctly is a talent which is either born in a man, or only learned after long experience. The doctor should endeavor to ascertain the patient's circumstances. He can thus be in a position, knowing as he does the gravity of the operation or its triviality, to say what the operation is worth to the patient. The doctor is necessarily the better judge of the two, as he can tell fairly well the value of both these factors, while the patient cannot be well trusted to estimate the severity of an operation about which he is, and must remain, more or less ignorant. When we see what the prices are in other callings, such as law and business, I think we can safely conclude that the profession as a whole is not overpaid. I think there are in every city men who take a purely commercial view of their work, who make work, and do other unprofessional acts, but they get found out sooner or later, and get their pay in kind."

There is practically little difference in the size of the fees asked by the same class of men in England and America. The usual chamber consultation fee in London is two guineas, and capital operations cost from twenty guineas to the thousands, according to the gravity of the case and the circumstances of the patient. Consultation on the Riviera, which necessitates several days of absence, is usually four hundred guineas.

Office consultation in our large cities ranges from five to twenty dollars. Consultations out of the cities involving an absence of half a day, range from one hundred to two hundred

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## Original Communications.

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### THE UNIVERSITY IN RELATION TO THE STUDY OF MEDICINE.\*

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BY G. SIMS WOODHEAD, M.A., (CANTAB), M.D. (EDIN.),  
LL.D., (TORONTO).

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Whilst casting about for a subject on which to found my address, I spoke to one of your alumni, Dr. W. H. Harvey, who by his work in our pharmacological laboratories has been bringing credit, not only to your school but to ours, and I learned from him of your decision to add an additional year of medical study to the course qualifying for the M.B. degree of your university. All questions of modification of curriculum are of vital interest to me at present. We in our Medical School in Cambridge are in the throes of development, and, naturally, we are anxious to work along lines that will lead us to the most satisfactory results. I thought then that I should like to discuss this matter with you. In order to obtain data for this discussion I have made a careful analysis of your curriculum and of those of Edinburgh and Cambridge Universities, with which two latter, as the result of careful study and comparison, I am specially familiar.

You have the advantage of a "clean slate" and I am going to ask you to look for a moment at your advantages as seen through the eyes of one who has followed the working of an older system, that of Edinburgh, and of a more recent system, that of Cambridge. The former may be taken as a type of the Scottish schools, an old medical school in which some pre-

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\* Portion of address delivered in Convocation Hall, University of Toronto, October 4th, 1908.

liminary education is required, and in which at one time what is called university education and culture were looked upon as not only desirable, but essential. In the olden days every student in medicine was supposed to have completed a three or four years' curriculum in Arts and to have passed an examination in "Philosophy," "Mathematics," and "the Humanities," such as would entitle him to the degree of Master of Arts. With the new Medical Act of 1855, I think it was, this requirement was relaxed, and after various intermediate arrangements, the student before commencing his medical studies must, in lieu of the Master of Arts examination, pass a preliminary examination in English, Latin, Elementary Mathematics, and Greek, or French, or German, unless the native language of the candidate be not English, in which case the native language of the candidate may be substituted for one in either French or German, and an examination in any other classical language for one in Latin or Greek.

The course of medical and surgical study extends over five years. The course of lectures delivered during the winter session usually consists of at last one hundred lectures and the summer course of fifty lectures, though short courses in some subjects may be delivered during the winter session. Candidates for the degree of M.B., Ch.B., must have attended for at least three academic years the medical and surgical practice of a general hospital which accommodates not fewer than 80 patients, and possesses a distinct staff of physicians and surgeons. They must have attended a course or courses in clinical surgery extending over not less than nine months, consisting of regular instruction at the bedside along with clinical lectures. A similar course of training in clinical medicine is required. Evidence of instruction in, and knowledge of special branches of medicine and surgery are also required in the final examination. With respect to the places and institutions at which the studies of the candidates may be prosecuted, the university though liberal is exceedingly cautious. Two of the five years of medical study must be spent in the University of Edinburgh. The other three may be spent in any university of the United Kingdom, or in any colonial or foreign university recognized for the purpose by the University Court, or in such medical schools, or under such teachers as may be recognized for the purpose by the University Court. Of the subjects of study, 16 in number, namely, Anatomy, Practical Anatomy, Chemistry, Practical Chemistry, Materia Medica, Physiology, Practical Physiology, Practice of Medicine, Surgery, Midwifery and Diseases of Women, Pathology, Practical Pathology, Physies,



Botany, Zoology, Medical Jurisprudence and Public Health, not fewer than eight must be taken in the University of Edinburgh or in some other university of the United Kingdom, or in some foreign or colonial university entitled to confer the degree of Doctor of Medicine recognized for the purpose by the University Court, or in a college, incorporated with or affiliated to a university entitled to confer the degree of Doctor of Medicine recognized for the purpose by the University Court.

Women are admitted to graduation in medicine under practically the same conditions as men, the medical college for women taking the place of the university as a place of instruction, there being no provision for teaching women in the University Medical School. The examinations are conducted in writing, and orally, and where the subject admits, clinically.

Now, let us see how these subjects are treated in the course.

The first examination in which the knowledge of the candidate is tested as far as possible through specimens placed before him may be taken at any period after the student has attended the qualifying courses of lectures, demonstrations, and practical classes in chemistry, zoology, botany and physics.

Candidates may pass any or all of these subjects at any university of the United Kingdom or at any university approved by the senate for this purpose, when such subjects qualify for a degree in arts or science. Candidates who have satisfied the examiners in the subjects of the first examination may present themselves for a test in physiology as soon as they wish after attending the qualifying courses, and in anatomy any time after the first half of the third winter session. In the third division the student may present himself for examination at any time after the third summer session in the case of students who begin their work in October and at the end of the fourth summer session in the case of students who begin their curriculum in May. *Materia Medica* may be taken at the end of the fourth winter session, and practical pharmacy and the physical, chemical and botanical characters of medical substances at any time after the student has completed the necessary course of study.

In the fourth division a student, after taking the prescribed course of study, may be examined in forensic medicine and public health, at any time; in midwifery at any time after the end of the first half of the fifth winter session, and in practice of medicine and surgery at any time after the end of the fifth winter session; and in clinical medicine, including the diseases peculiar to women, and clinical surgery, at the end of the fifth year of study.

There is much that is good in this arrangement, and it may

give excellent results if properly worked, but a little later, I shall criticize it in one or two somewhat important details. It is, no doubt, the outcome of long experience, not only of the work done in Edinburgh, but of that done in the other Scottish universities; for since the last report of the Royal Commissioner on the Universities, the governing bodies of these institutions have been brought into much closer touch than was formerly the case, and their curricula have been brought much more into line. Before leaving the description of the curriculum of this school, it may be mentioned that Bachelors of Medicine and Bachelors of Surgery may proceed to the degrees of Doctor of Medicine and Master of Surgery, after they have spent one year in the medical or surgical wards respectively of an hospital in the military or the naval medical service, or in scientific work bearing directly on their profession, or two years in "practice." In each case an examination must be passed, and a thesis submitted for the approval of the faculty.

The Cambridge Medical School represents the newer schools, for though it has for long sent most distinguished men into the profession, it only came to occupy an important position as a centre for medical teaching and research some 35 or 36 years ago. Here a student must "keep" or reside nine terms (three years) after passing the previous (or matriculation examination for the university) examinations or some corresponding examination in classics, mathematics, English, etc. This examination must be taken by every student of the university either before he enters, or at as early a date as possible afterwards. He may commence the study of medicine at once, though this is the exception. Most men proceed to a degree in arts, many continuing to study classics and mathematics before they proceed to their medical studies; the majority, however, take an honors "tripos" in the natural sciences. Where time is an element of importance, this latter course is invariably adopted, as much of the work done for this tripos examination is useful for the first and second examinations for the M.B. degree. The regulations as to period of study are much the same as in other universities. Of the five years' study required after registration, the first three or four are usually spent in Cambridge, during which period the student passes the examination for the natural science tripos (1st part); sometimes he will also take a "2nd part tripos," specializing for a year in some subject such as advanced physiology, anatomy, chemistry, botany, or geology, and the first M.B. examination, including chemistry and other branches of physics and elementary biology. (These may be taken together or separately), and



the second M.B. examination in human anatomy and physiology, both of which subjects must be passed at the same time. These two examinations should be cleared out of the way by the end of the ninth term. Many men leave Cambridge at this period, but an increasing number stay for two additional terms, until they have passed the first part of the third M.B. examination in pharmacology and general pathology. They are then transferred, most of them at any rate, to the large London, Provincial, and Scottish or Irish schools, where clinical material is more abundant and facilities for clinical study are greater than can possibly be provided in such a small town as Cambridge. Two or two and a-half years later the student returns, takes the second part of the third M.B. examination, at which he has to profess the principles and practice of general and special branches of surgery, midwifery and diseases peculiar to women, principles and practice of physics, including mental diseases, medical jurisprudence, hygiene, and public health, etc.

One of the features of this part of the examination peculiar to Cambridge, and a most admirable one, is the "keeping of the act in the public schools" in which a candidate reads and defends a dissertation composed by himself on some subject previously approved by the Regius Professor of Physic.

The degree of Doctor of Medicine may be taken three years after that of M.B. Moreover, if the student does not wish to take his M.B. at all, he may proceed to the degree of M.D. four years after passing his M.B. examination, taking his M.A. degree. In each case the procedure is the same. A thesis containing original work has to be sustained in the public school. At this act any member of the university may submit the candidate to a *viva voce* examination on any work contained in the thesis. This duty is usually, of course, undertaken by the Regius Professor of Physic and a Doctor of Medicine of the university, who is appointed to act as his assistant. The candidate has also to write an extempore essay on some subject relating to physiology, pathology, the practice of medicine or state medicine.

Now, ladies and gentlemen, I am sure none of you will accuse me of disloyalty either to my Alma Mater, which has a very deep and abiding place in my affections, or to the mother that has so graciously adopted me, if I criticize in certain details the medical curricula as pursued in Edinburgh and Cambridge Universities respectively.

The long courses of systematic lectures given in Edinburgh, and necessary for the degree, are in themselves admirable, but



that they are desirable or necessary I am far from satisfied. It is the Scottish system to treat every main subject in the curriculum in either fifty or one hundred lectures, no fewer, no more. Is it reasonable to suppose that all the subjects can be treated in the same way, and that all teachers shall have just this amount to say of each of them? Lectures are of supreme value in bringing the mind of the student into close touch with that of his teacher, but for the mere setting forth of facts they are worse than useless.

Edinburgh has great traditions, and the work done by her alumni affords ample justification of the method in the past; but in common with many others I cannot help feeling that much of the professional lecturing might, with very great advantage, be curtailed; that the remaining lectures might be expository and illustrative, and that some of the time thus set free might be devoted to practical work, to explanation and criticism of good text-books by the professor or his assistant demonstrators, or to actual reading.

The professor would thus come to be the friend and companion and leader, not the fingerpost or pointer. In the newer schools where tradition does not demand these lectures, there may be a tendency to go too far in the opposite direction, and I know many teachers who, because lectures on one subject or by one teacher are of no value, will not allow that they should ever form part of a medical curriculum. I believe in laboratory and practical work, and believe in them most thoroughly, but I think that the lecture has still an important place in the training of the medical student if only that it brings the developing mind of the student into contact with that of the man who is supposed to be his master and educator. Moreover, it is a good thing for the teacher himself, if he will not be content with stereotyped and text-book lectures. He must have things clearly defined and well arranged in his own mind before he can hope to explain them to others. If his teaching is to be up-to-date, his own reading and observation must not be allowed to lag behind, and the student profits.

## PODOPHYLLIN THE HEPATIC AND FEVER MAGIC.

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BY ROBERT GRAY, M.D., PICHUCALCO, CHIAPAS, MEXICO.

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When I was a small boy decoction of may-apple was the purge on the slave plantations of my father and neighbors, and I adopted the extract at first and the podophyllin later into my practice, absolutely, as a substitute for calomel and its sequent, castor oil, with unvarying success.

For many years I employed it in strict conformity with text-book rules, till once in Central America I left twenty half-grain pills with a ranchman who had double pneumonia, whom I could not possibly see again in less than a week, with instructions to take two every night, feeling confident that he would be dead in less than twenty-four hours, as the fever was high and the lung involvement alarming.

Sunday was the day I could return. Saturday afternoon I went to the office of vital statistics and was astounded not to find his death reported.

But when I reached his house I was far more surprised to find him weeding his garden.

He came in smiling, and told me that as soon as I was out of hearing the previous Sunday he told his wife I had no expectation of ever seeing him again, and that if those little pills would benefit him in the least in nightly doses of two, all taken at once should be more effective or end his agony promptly. She protested, but he swallowed them all, and inside of two or three hours he began to vomit copiously, and to purge in a stream, till the next day, when there remained nothing more in him but a ravenous hunger, the fever and the cough being entirely at an end.

This was a startling revelation to me, and that poor mountaineer, who would have reposed in the silent churchyard, obedient to my academic attainments, sat there in front of me, with a sarcastic twinkle in his big black eye, as humiliating to my professional dignity as

“And his eyes have all the seeming  
Of a demon’s that is dreaming,”

in Poe’s “Raven,” and he never had a fee bill of mine presented for payment, not even for subsequent useful service.

I began experimenting on the line of the accidental knowledge then mine, gradually increasing my dosage, till at length

I found that eight half grain pills, four grains of podophyllin resin, was ample for maximum adult dose, preferable administration one pill every half-hour, when urgent emergency does not require all to be taken at once.

I have since had three accidents, of eighteen twice and twenty once, erroneously given, with nothing seriously eventful; and several owners of plantations, clients of mine, persist, contrary to my advice, in giving their peons ten half-grains at night at inception of fever, that seldom fails to abate before day, when broken doses of quinine speedily return the men to duty.

I have same experience in my private practice, with my maximum dose with incipient fevers, even such as pneumonia and typhoid. I now use the following compressed tablet:

Podoph.	.....	grain $\frac{1}{2}$
Extract Nux Vomica	.....	" $\frac{1}{16}$
Extract Hyoscyamus	.....	" $\frac{1}{8}$

Hance Brothers & White, Philadelphia, make this for me, almost by bushels.

Hundreds and hundreds of other doctors in the tropics and United States are using the same dosage with equally propitious results.

The combination is a medical magic. Podolph. alone is anthelmintic in such high degree that some American tape-worm specialists are employing it successfully where male-fern and pomegranate fail. I have been unable to secure any formula. The maximum fever dose often expels the common intestinal worm almost as effectually as santonin given for such purpose.

Maximum dose equals in every respect the action of calomel and castor oil in heroic dosage, with no sequent physical detriment, inseparable from the mercurial derivative. And the small or fractional dose is the best hepatic remedy we have and unapproached in anemic and other morbid derangements.

When there is obstinate constipation and a stomach full of bile there may be copious emesis before the purge begins to act, always affording relief of material value. I always give one or two tablets, according to patient and necessity, every night subsequent to heroic purge, while thus indicated as needful.

In some of these fearful tropical fevers that produce an excrement as sticky as plaster, I am obliged to follow action of heroic purge with castor oil and employ enemas with an ounce of epsom salts to a quart of water, frequently repeated, while the necessity exists.



The hyoscyamus was employed at first to counteract the griping action of the podolph., but it has been demonstrated since that it exercises other precious influence in the combine.

I have become possessed one way and another of other valuable departures from the beaten ethical track, yet more clinically important than that of podolph., of which the PRACTITIONER AND REVIEW has the option of indicating to its readers, as I cannot in this narrow contribution space.

I am now forty-three years in this fearful tropical practice, in the sickliest belt of the continent, without one day of vacation.

## AN ADDRESS TO EX-STAFF TORONTO GENERAL HOSPITAL.

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BY ALEXANDER TAYLOR, M.D., GODERICH.

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*Gentlemen,*—At the last meeting of this association I thoughtlessly promised to read a paper on the treatment that was usually followed when I was on the house staff of the Toronto General Hospital. The house staff at that time consisted of Dr. Hampton, the medical superintendent, four nurses and myself. I am not so sure about the number of day nurses, but there was only one night nurse, poor old Eliza, a faithful old nurse who tried to do her best with the training she had received previous to her entrance into the hospital. The nurses were all young women, many of them from the country, without any special training, and probably never saw a hospital before they entered it. At that time if a patient had pneumonia, pleurisy, bronchitis, or even typhoid fever, if the bowels were very much distended, he was poulticed with linseed meal as hot as our hand could bear. It made no difference how high the temperature was; in fact, the higher the temperature the hotter the poultice should be if it were possible to do so. At that time the professional qualifications of a nurse depended greatly on her ability to make and apply a poultice. Many of the physicians would not allow us to put any cheesecloth on it, thinking that the poultice, when applied to the skin, would “draw out the disease.” I have seen patients with pneumonia, when the respirations were 45, and with a temperature of 104 or 105, raised up in a sitting posture to enable the nurse to properly apply the poultice, and, what was still worse, the weaker the patient got the oftener the poultice had to be applied. If the patient survived this treatment for five or six days, the next thing we had to do was to sponge the patient with soap and water, and then apply a fly blister. After the blister was on from six to eight hours it was removed. A poultice was again applied. As soon as the part healed another blister was applied. On the other hand, if the patient lingered on for a long time, and did not respond to this treatment, I would have to introduce a seton and have to turn it around daily, to the great discomfort of the patient, for weeks. The physicians

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\* Read at Annual Meeting of the Toronto General Hospital ex-House Staff Association, April, 1909.

of that time were just as honest, just as sincere, and believed as much as we do to-day that they were doing the best that could be done for their patients. Many of them would argue that they could prevent the extension of pneumonia from one lobe to the other by poulticing if they saw the patient early enough.

In reference to infectious diseases, we were not so particular about isolating the patients except in cases of erysipelas and smallpox. Speaking of erysipelas, I have known the surgeons to put off an operation for weeks if it were possible to let the erysipelas get well. We did not take any extra precautions to disinfect the room or take any other precautions further than to remove the bedding. Fifty per cent. after surgical operations died of sepsis, which was due to the unsanitary condition of the hospital. I can remember very well the first smallpox patients I ever saw. There were six of them. They were large, well developed foreigners, with large faces, but when they had smallpox they seemed to me so huge that I was terrified. In the party was a very feeble old lady, and so ill that she could scarcely walk ( I need not remind you that we had no elevators in those days). I had to take her up to the third storey, which we really kept for smallpox patients only. Well, I plucked up courage and assisted the poor old lady up the stairs, and when I reached the second flight of stairs my fear of smallpox vanished, and from that day to this, as far as I am personally concerned, I much prefer attending this disease to either scarlet fever or diphtheria. Dr. Hampton, the medical superintendent, was away from home, and I had to act on my own judgment. I first started out with the intention of vaccinating every patient in the hospital, but I struck a snag. They would neither be vaccinated, nor could I compel them. I do not think that there was more than one in every ten that would submit to be vaccinated. It was far more difficult to vaccinate then than it is to-day. We had no glass tubes, or ivory points, as we have to-day, but had to content ourselves with the scab taken off the arm of what we thought was a healthy subject. We preferred taking the scab of a healthy young child if we could get it. I think that we usually kept the scab between plates of glass, covered with wax, to keep the air excluded from it. This was the only precaution that we took to prevent the spread of the disease. I went up into the smallpox ward and prescribed for the patients. The nurses left the other wards and attended them, and then we went down through the different wards and halls of the hospital without taking the slightest precautions. I do not think the nurses even washed their hands any oftener than they would under ordinary circumstances, but as far as



changing even their aprons, I do not think they did that. I would often meet a patient when going through the different wards in the morning with a few pocks on his face, and I would march him or her up to the smallpox ward and keep him there until he was convalescent, and then he was allowed to mix with the other patients downstairs without changing his clothing or even taking a bath. The friends of the patients were allowed to visit them. There was no rule or regulation of the hospital to prevent them from visiting the smallpox patients if they wished to do so. I have forgotten the number of patients we had in hospital, but I am sure there must have been about thirty, and, with the exception of the foreigners, there was only one who had the confluent variety. She was one of our nurses, and never was vaccinated, nor would she allow me to vaccinate her. She was very ill, and her whole body was one mass of sores. I think it would have been hard to put a pin point in healthy skin, and the odor of her room was intense. She was the only one that we lost, and the part that I want to tell you is that I carried her down from the third storey on the stretcher, through all the halls to the morgue, without taking the slightest precautions. I suppose you have all heard one definition of a disinfectant—something with an odor so bad that you have to open the windows to let it out. Well, that is about what happened in this case; we not only opened the windows, but gave the room a thorough washing with carbolic acid and water, but we burnt sulphur as well.

In reference to the treatment of enteric fever, we gave large doses of quinine. I have seen as high as 30-grain doses given, and if the temperature did not come down in four hours, I have seen that dose repeated. To sponge with cold water would be an unpardonable crime, and I don't remember ever seeing a patient get a cleansing bath of soap and warm water until the patient was convalescing. We also gave large quantities of milk and milk and lime water to sustain the patient from the commencement of the disease. As a consequence we brought on one of the most difficult and painful complications, viz., indigestion, and distention of the bowels. Then we had to resort to hot poultices and turpentine. I really should know something about the treatment of typhoid fever in those days, as the hospital was filled with it, and every official but myself was ill with it. I had it, but did not know it. When I look back I am sure that I had a "walking" typhoid fever, and every medical man on the staff would prescribe some different brand of wine. I remember as well as if it were yesterday the expression: "Well, Taylor, you will be the next one." After

this comforting remark, he would immediately prescribe his favorite brand of wine.

There is another important part of the treatment of to-day that we could not carry out then, and that is keeping the patient quiet in bed. We had no bed pans, and the nearest approach to it was what we called a night stool. This was wheeled from one patient to another as it was required, but the patient had to get up out of bed at all stages of the disease. Some of the medical men would not even allow their patients to drink cold water. When I started to practise in the country there were very few medical men who would allow their patients with any fever to either drink cold water or allow a breath of fresh air or a bit of sunlight to get into the room.

I am not exaggerating at all when I tell you that if I gave a patient a drink of cold water after her confinement, and especially if I advised them to take the curtains down, and allow the fresh air to freely circulate through the house, and if from any cause the patient died, I might as well leave the place. Her friends and neighbors would certainly attribute her death to my advice, and would never employ me again.

I notice that at every meeting of this association the superintendent of the hospital points with pride (and I must admit justly) to his boys, such as Drs. Cullen, Barker, McCrea, and every person present but myself. I am the only black sheep in this flock.

I hope, however, that you will pardon me and not consider me egotistical if I do sound my own praises a little. There are two or three little things that I do claim some credit for. When I left this hospital in the year 1870 I was fully convinced that setons, fly blisters and poultices were useless, if not an injury, in pneumonia and in similar diseases.

There is one other subject that I would like to speak about, and that is "Antiseptic Surgery." I intended bringing down Lister's atomizer, but unfortunately forgot. I regret my forgetfulness very much, for I have no doubt that there are many present who never saw one. I might mention that when I was in the Edinburgh infirmary it was considered one of the most important instruments in the hospital by some of the surgeons, but finally it got into disrepute. I attended the Edinburgh Infirmary in the years of 1875 and 1876, when Dr. Grasett was Lord Lister's house surgeon, and on my return to Goderich I got all his antiseptic appliances, and I claim that the late Dr. Stewart, of Montreal, and I were among the first who practised antiseptic surgery in Western Ontario.

Before closing this paper, I do not wish any of you to go away with the idea that I underrate the ability or wish to speak disrespectfully of the members of the medical profession who practised about the years 1869 and 1870, the years that I spent in the Toronto General Hospital. On the contrary, gentlemen, I wish to speak in the highest terms of them. They were gentlemen in every respect both socially and professionally, and could not, or at least would not, stoop to commit an unprofessional act. I am sure you will agree with me when I pay tribute to the names of the late Drs. Widmer, Beaumont, Bovell, Hodder, Aikins, Bethune and Hampton, the superintendent of the hospital, as well as Richardson, Geikie and Ogden, who are with us still. In closing, may I speak of one of these in particular, whose name I shall always revere, and to whose early teaching part of Dr. Osler's success is no doubt due—my old professor of physiology, Dr. Bovell.



## THE ORDER OF ST. JOHN OF JERUSALEM IN ENGLAND AND ITS WORK OF BENEFICENCE.

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BY COLONEL G. STERLING RYERSON, M.R.O.

Knight of Grace of the Order; General Secretary of the St. John Ambulance  
Association in Canada.

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The tendency of modern times is to scoff at Orders and decorations, and knightly and kingly trappings, and to declare that all such gew-gaws should be relegated to oblivion, or to museums of antiquities. Demos is king, and his courtiers, suppliant and subservient creatures, would make a mocking of all that is knightly and chivalrous. But chivalry is not quite dead in men's hearts, and there is at least one ancient order of knighthood which is known by its works. Although founded eight centuries ago, A.D. 1048, the Order of St. John is still carrying on in a large and imperial way the work of its founders. It is true that it no longer limits itself to the narrow confines of the Holy Land, but has spread over the four quarters of the globe, and is to be found busy in its work of mercy in every colony and dependency of the British Empire.

Founded by Peter Gerard as a religious fraternity at Jerusalem, at the time of the Crusades, for the relief of the sick and needy who should visit the Holy Sepulchre, the Order of St. John was known as the Hospitallers. The brethren were bound by vows of charity, poverty and indissoluble brotherhood, and healed the sick, fed the needy, and exercised an unostentatious hospitality toward all. Sympathetic and religious people subscribed liberally to their funds, and they thus became the almoners of Europe—as indeed their patron saint was St. John Eleemon.

They were finally driven from Jerusalem, and it was in consequence of this that, in self-defence, the fraternity developed into a band of soldier-monks and warring-physicians. Space will not permit me to trace the history of the Order in detail, but suffice it to say that, driven from one stronghold to another by the Turks, they at length reached the Island of Malta, which was presented to them by the Emperor Charles V., of Germany, where they grew and prospered and became one of the richest and most powerful brotherhoods in the world; but, having no warlike duties, they lapsed into idleness and luxury, although they still adhered to the original idea of the founder, of distributing charity and maintaining a great hospital at Valetta. The final disaster came when, through the treachery of Von

Homspech, Grand Master in 1798, the island was betrayed to Napoleon Bonaparte. It is gratifying to know that the price of the betrayal, \$400,000, was never paid, and Von Homspetch died in poverty and obscurity in 1805. The knights were banished, their property seized, and no more seen in Malta, where they had ruled for 268 years. The island was captured from the French by the English in 1800, and remains in their possession to this day.

The Order was divided into eight "langues," languages or national branches, of which the English was the sixth. This langue was suppressed in England at the time of the Reformation under Henry VIII. The knights were dispersed, but continued to hold communication with the chef lieu at Malta. Its chief seat in England was the priory of St. John at Clerkenwell, which was destroyed. It was rebuilt in part; and the ancient Gate House, which still stands, and is the seat of the Order, was completed in 1504.

The Order was revived in 1826 by Sir Robert Peet and other English gentlemen of position, and became increasingly active in works of mercy until in 1888 it received the Royal recognition and a Royal charter of incorporation. Her late Majesty Queen Victoria became the Sovereign Head; H.R.H the Prince of Wales, Great Prior; and his son, the late Duke of Clarence, sub-prior. On the death of Queen Victoria, King Edward VII. became the Head of the Order, and George, Prince of Wales, Great Prior. The grades of the Order are: Knight of justice, knight of grace, and esquire. The ladies are ladies of justice and of grace. There are also honorary associates and honorary serving sisters and brothers. The roll of the Order contains the names of the princes and princesses of the Royal House of England, and many foreign princes and noblemen, as well as those of men and women prominent in works of mercy and in society all over the empire. The badge of the Order is an eight-pointed star, which is worn suspended from a black watered silk ribbon.

The St. John Ambulance Association was founded in 1877 by the Order of St. John to continue the work of its founders as indicated by its motto: "Pro utilitate hominum," and is its ambulance department.

Its objects are:

(a) The instruction of persons in rendering First Aid in case of accidents or sudden illness, and in the transport of the sick and injured.

(b) The instruction of persons in the elementary principles

and practice of nursing, and also of ventilation and sanitation, especially of a sick room.

(c) The manufacture and distribution by sale or presentation of ambulance material, and the formation of ambulance depots in mines, factories, and other centres of industry and traffic.

(d) The organization of ambulance corps, invalid transport corps, and nursing corps.

(e) And generally the promotion of instruction, and carrying out works for the relief of suffering of the sick and injured in peace and war, independently of class, nationality and denomination.

It must be clearly understood that the object of the association is not to rival but to aid the medical man, and the subject matter of instruction given at the classes has been defined by the Medical Committee of the Ambulance Department, with the view of qualifying the pupil to adopt such measures as may be advantageous, pending the doctor's arrival, or during the interval between his visits.

The course of instruction consists of five or more lectures in First Aid to the injured, followed by an examination, for which certificates are issued to the successful pupils, and five or more lectures in Nursing and Home Hygiene, followed by another examination, for which certificates are also given. At the expiration of a year a re-examination is held, and after another year and second re-examination a medallion. The interest maintained by these re-examinations is witnessed by the issue of no less than 112,247 medallions. The number of certificates issued from St. John's Gate from 1877 to September 30, 1907, is 717,495, the classes being distributed over almost every colony and dependency of the Empire. It is hardly necessary to add that the records prove that thousands of lives have been saved and much needless suffering avoided by the elementary knowledge of medicine and surgery afforded by these courses of instruction.

#### THE BRITISH OPHTHALMIC HOSPITAL AT JERUSALEM.

This useful and important charity is maintained at Jerusalem, the birthplace of the Order, almost entirely by the subscriptions of the members. It was founded in 1881, and is doing admirable work under the administration of Mr. Cant, F.R.C.S., among all classes, Christians, Jews and Mohammedans. In 1907, 988 in-patients were admitted, 9,269 new cases seen, 38,369 consultations held (out-patients), 1,670 operations performed, and 919 anesthetics given.



## THE ST. JOHN AMBULANCE BRIGADE.

This is practically a second reserve for the Royal Army Medical Corps, and consists of companies of uniformed men trained in First Aid and hospital nursing and drilled in field ambulance exercises, and commanded by a chief commissioner. There were in 1907, 16,068 officers and men in many divisions scattered over Great Britain and the Colonies. In connection with the brigade is a large corps of female nurses, who are uniformed and trained in their respective duties. It may be stated as an evidence of the importance of the work of the brigade that during the Boer war 2,048 trained men were sent to South Africa to supplement the work of the Royal Army Medical Corps, or to man volunteer hospitals; 68 of the men lost their lives during the campaign. In connection with the brigade there is also maintained the Royal Sick Berth Reserve, who perform at sea similar duties to those of the brigade on land. Its strength is 669 officers and men.

## THE ST. JOHN INVALID TRANSPORT CORPS.

There occur annually in the streets of London upward of 10,000 accidents, irrespective of the special occasions when great crowds gather. Until recently the usual mode of conveyance was a shutter, door, or the four-wheeled cab. None of the great hospitals were provided with ambulances; now, thanks to the Order of St. John, this has been changed. The Order maintains an Invalid Transport Corps, wheeled ambulances, wheeled stretchers, and ambulance posts, where men are on duty night and day. I think sufficient has been said to justify the statement that the Order is living up to its motto, "Pro utilitate hominum." To be a member of the Order is not only a great honor, but a great responsibility.

The Canadian Centre was established by Dr. G. Sterling Ryerson in 1894, Sir George Kirkpatrick becoming first president. On his death he was succeeded by Sir James Grant, and he again by Sir James Whitney, Premier of Ontario. Sub-centres have been authorized in the following places:—Ontario—Toronto, London, St. Thomas, Peterboro', Stratford, Kingston, Oshawa, Owen Sound, Berlin, and Brantford. Quebec—Montreal, Westmount. Manitoba—Winnipeg, Brandon. Alberta—Calgary, Edmonton. British Columbia—Vancouver, Nelson, Victoria. New Brunswick—Fredericton. Nova Scotia—Halifax, Sydney Mines.

There is now in Canada one division of the St. John Ambulance Brigade—at London, Ontario. Upwards of 5,000 persons have taken the course of instruction in First Aid and home nursing, and many thousands of text books have been sold. The head office for Canada is at 66 College Street, Toronto. -

## PROFESSIONAL INTERESTS.

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BY JAMES S. SPRAGUE, M.D., STIRLING, ONT.

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The many villages and small towns of this province and of any state organized or settled by those who bear the relationship of grandsires to the living, have one characteristic and one equally enjoyable or possessed, one may state, in common, and one characteristic is that well termed as lethargy—although each citizen tells you he is busy and has not time for extra work. Yet, if closely studied, this same citizen and his fellows would be found not so much engaged as old Burton, as the author of "The Anatomy of Melancholy," said of himself, "busying himself with the playing of labor." Among such citizens may be classed the old and the young M.D.'s, who have fallen under, or will in time fall under, the spell of Rip Van Winkleism. To this fact, evidently, is ascribable the absence of contributions from those, the indifferents, and the intransigents in whom inappetence, only in an existence, has no higher motive. In brief, there are many of our profession who, unmindful of the fact, are simply adumbrations of themselves, either as citizens or as worthy men in our ranks, and such are those whose lives pass as a weaver's shuttle; who are defrauding themselves with the inane thought that they are busying themselves, and even when playing at so-called labor; and to this widespread indifference, this want of an active organization or want of unity, is justly attributable the non-fulfilment of some of the best and most pressing interests in medical establishment—of which Dominion Medical Registration may be named as the principal one—especially necessary in these our times, in these days, when our own western provinces are being settled, and our young M.D.'s are looking, and with truly patriotic hearts, to these new lands for homes, rightfully too, as those to which they are loyally entitled to possess. Every encouragement is afforded for entrance into studies relating to medical matriculation, and during the high school life of every scholar some one of the professions in due time becomes his ambition, and the well-to-do doctors, which most every village possesses, afford happy and promising efforts towards the acquiring of the M.D. Yes, the fact that two or more doctors can be referred to as the possessors of wealth or sufficient competence is, and has been, the allurements and the incentive, not only of the covetous, but of the best and most promising sons of very many of our best families, moral and wealthy. One fact, by way of explana-

tion, and considered worthy of mention, is this, that few students or their guardians consider the source or foundation of the wealth of the so-called wealthy doctors; for, if investigation were made, in most numerous instances the wealth would or could be named as that secured by inheritance, or some silently-made investments, or interests in which medicine was a totally unrecognized factor.

The song the sirens sang is yet in the air; yes, all day, and in their dreams at night, renewed delight and ambition are the possessions of those looking forward to Medicine; it is the *lux e tenebris*, and the doctor in the family is the hope of those who look after the filling of corn cribs and the dairy interests, and that of the spindle. The hope of every honest and ambitious father and mother, who look for greater respectability and honor to their name, is that one of their honest, equally honest, God-fearing and ambitious sons shall be a doctor. Equally so, if there is a strong religious tendency in the family record of church piety, is the silent and oft-repeated prayer that one of their sons shall preach Christ and become a "leader of faithful souls and guide for those who travel to the skies." In regard to Law, duly recognized as with Divinity or the Church and Medicine, as the trinity of the learned professions, was ever there a mother's prayer or a father's encouragement that their son pursue this profession? If so, it has not been told, nor is it on record.

The duly licensed divine can, without undergoing further examination or payment of fees, very easily transfer his labors to other and remote conferences, for souls to be saved are found that have the same call for redemption, not only in the sea-girt regions, but in the vast plains of our western provinces, and in the wilderness of forests, rocks, swamps and muskegs of their northern boundaries. And if of the "angelic conjunction," that is, half preacher and the other half doctor, restrictions are easily overcome. This junction under one name and under one hat can, and always does, play "sky pilot" and Esculapius without molestation. From many sources I learn that a barrister, with some few difficulties, can easily establish an habitation in any one province, near or remote from that in which his licensure was first obtained. In regard to certificates relating to the teaching of public schools, there exist easily-overcome difficulties, and the Prince Edward Island school teacher, or a teacher of any one province, does not hesitate to move when opportunities for a larger salary await in another province, for the three "R's" are equally taught in every province, and the standard required is of similar nature to our coinage. With these il-



lustrations we do not forget the trained nurse in her self-styled "profession," (whose existence and pomposity and struggles for incorporation—and, no doubt, degrees—our profession has silently nursed in its bosom to its own degradation, and its stings are experienced). Evidence is presented that when the "sky pilot," or "Mark," the lawyer, or the pedagogue, or the nurse (with her profession) wish fresh pasture, no head tax worthy of the mention is demanded. Dr. White (deceased), my old friend, a few years since, carefully reviewed in one of our journals the prolonged delays and excessive expenditure for licenses that our duly qualified M.D. and M.R.C.S. would incur in the procuring of each provincial license, his starting point being one or more of our Eastern Maritime Provinces. Several years and several hundreds of dollars, not including vexatious delays, were demanded before one could practice in a land whose population is not that of London. "Is Canada for Canadians?" or does it offer any special advantage to the M.D. of London, Edinburgh, or Dublin? No! Every state of the United States will offer him better terms for license than any one of our provinces. Does any one province offer you—an M.D. of Victoria, Trinity, McGill, Toronto, or Queen's, or London—its license on as favorable terms as any one state in America? No! An alarm arises, whose origin is purely political, and the Empire and its dependencies beyond the seas become inflated with aroused loyalty, and a "Dreadnought" as a present is the confirmation of said sudden outbursts of imperialism abroad in our midst. However, one mayor or reeve, and he alone, says there is no imminent danger, and evidently he was a well-versed reader of political news. Such is introduced as an illustration, to the effect that many who think they think do not think—if so, not as in the manner of men whose decisions are well weighed, and then given after careful study.

As regards our profession's interests, which in part afford the only incentive for this paper, it is, and has been most noticeable, that those who should work in the interest which refers solely to our profession's licensing systems in this and other provinces, are indeed ranked with the minorities, and the result is, and has been, that through this want of what should be the concern of every fellow M.D. who loves his profession and as a loyal subject should be heard, very many duly graduated M.D.'s have ignored the examinations of our College of Physicians and Surgeons—even the licensing bodies of our western or other provinces, and by voluntary self-expatriation become citizens of the neighboring republic. The registers of our universities reveal the sad fact that more than one-fourth of each year's

graduates in medicine leave Canada for homes in foreign lands, and it is needless to ask what becomes of, or where will be, the homes of those who are unsuccessful at our Council's examination, and from a careful study of the number rejected during a period of four years, or at eight examinations at which I presided, it can be stated, and very safely, too, that at least one hundred fail annually. Considering the Council's rejections and those who, yearly, do not try the examinations, one may safely state that, yearly, two hundred of our best young men, M.D.'s, leave our shores. The loss to this province is a serious reflection, more worthy of alarm than the scare so needlessly alarming the imperialists, for Great Britain and Ireland are safe, and with her colonies doubly safe. Men, not ships, we want, and we want to keep within our boundaries those (the offspring of noble sires and mothers, true Canadians,) who are learned men—physicians—each one of whom is worth now one hundred men, even as in the days of Homer. Either our encouragement, the fine educational system of our public and high schools, or our public estimation of the doctor is at fault, and to any one of those named may be due the over-supply, but the fact remains that, as stated, difficulties and excessive fees bar their entrance to practice in sister provinces, and hence the exodus. I recall the words of "The Canadian Highlander," by Charles McKay, LL.D. :

"Alas ! the land denied me bread,  
Land of my sires in bye-gone ages.

It had no place for me and mine,  
No elbow room to stand alive in—  
Nor rood of kindly mother earth  
For honest industry to thrive in."

Is this in any sense applicable to us as a people who, in very few instances, can point out the graves of grandsires in this new country? Yes, is my answer. When I recall the fact that from this village and its immediate neighborhood there have removed to the United States during the last thirty-three years more than five hundred native and fellow-Canadians, and in the list one will find the names of several M.D.'s who were honored at home and equally honored and revered abroad.

While conversing recently with a dentist, whose newspaper card announces that he is an "honor graduate of Toronto University," (and every country newspaper has similar notice for every dental parlor owner, and I blush, and have a feeling of angina pectoris when I address him as Doctor), he tells me (and he is well up in his self-styled profession) that he would prefer facing examinations of any state to those of any one of our provinces. Thus, with these illustrations, one can see that, not



only we, but others, have their troubles, and that removals to other provinces, however alluring the prospects appear, and with few uncertainties give us a call, yet barriers exist, and such barriers are established by those with whom personal and not professional interests are their only stock and their nurslings. That no one dare become the champion, the vexillary for Dominion registration in medicine, and have a numerous following, is due to the lethargic condition of our profession; but that if one come out from among us and advocate such interests, his greatest opponents would be the officials of the several medical councils, for their positions and salaries would lessen in value, and the solace to the duly licensed, that limitation was in order, would serve to stifle any attempts in the interests of national unity in registration, no matter however rational and decidedly essential such an interest, even to the numerous insouciant and intransigents, would appear. There are those who have carefully watched the movements of the times, and will say, "Equally true is it that our own Medical Council has assumed such a wealthy establishment, whose officers are the recipients of large salaries, and whose examiners are well paid, whose workings are decidedly cumbersome, and whose transactions in many instances were of those who knew but little of financial affairs." In order to be brief, it may be asked : Would any one member of our Medical Council, provided its work were considered that of his own and purely personal management, conduct the same as extravagantly in time and money? If in this manner, he would be placed in the list of "easy marks," a designation too often applied to us as a profession, and well, and too often truthfully, applied, and proofs are not lacking. However, the Medical Council of our C.P. & S. is as perfect as can be established.

"The qualities required whether of a decent public servant or a soldier are not remarkable. Of such men it is demanded merely that they possess commonplace qualities in a rather remarkable degree," says ex-President Roosevelt. We as M.D.'s are servants of the public, and for our preparation we have given more than has been or is given by any one of any profession, avocation or vocation, and recognized of great worth to any community, even among men as wise, and among the wise as a doctor; yet, through indifference, individually and collectively, we have not exercised these commonplace qualities of mind in the preservation of our rights and privileges or obligations.

Through this influence of inaction we have allowed the nurse an influence which is gradually sapping the very foundation of medical practice, and had not a few of our fellow-men opposed their over-zealous claims, they would have had incor-



poration and university degrees. The same few have fought osteopathy, chiropractics and other similar madnesses of the crowd.

Those who permanently are established as teachers in our medical colleges, and those who are passing as doctors, and are enriching themselves in interests foreign to practice, are our greatest enemies, for they are callous to those ethical considerations which the ordinary practitioner well recognizes as the bulwark of our honorable profession. Yes, the hope of Medicine is, and ever will be, he of the country practice; for he is not one "who practices merely as a means of getting on, for money, for fame, for selfishness and success," for he believes anyone so engaged "is a traitor to his profession." This thought is an extract from Dr. George M. Gould's address: "Vocation or Avocation?" and although he is with the majority in practice, it can be said of them, "They have one faith and one altar," *fides communis altare commune*. Yes, there are some noble souls among them and with us—*quales neque candidiores terra tulit*—true to their duties and to themselves, yet indifferent to many considerations not always beneficial that are controlling the profession, and considers when he has paid his annual dues that he has done his full duty, and therefore does not disturb his leisure moments by the perusal of dry reports and transactions of provincial councils, although of the nine provinces three are favorable for the Dominion Medical Council or registration.

Brother, these "straight-flung words and few," not as a prize thesis, are presented with the most profound loyalty to my native land, and with equal loyalty and love to the profession, with which for forty years I have been connected as a country doctor, the hope of the profession, of whom as a class Gould most truthfully remarks, "The general or family physician is still in the majority, and he is the backbone of the profession, and the hope of curing our pitiful professional scoliosis rests with the true orthopedist," and if he who believes this, and is possessed of similar loyalty, disagrees with me, even if my zeal to him may appear as if my patron saint was of a mongrel breed—even Mulus—him have I unintentionally offended.

"United we stand, but divided we fall." If so, we must have one faith, and only one altar for the Dominion Medical Temple. And if we and our noble brothers and sons can be made to believe in "Canada for Canadians," we will "Dread-naught."

"Write down the vision and make it plain, upon tables, that he may run who readeth it." "For the vision is yet for an appointed time, but it shall speak, and not lie; though it tarry, wait for it, because it shall surely come; it will not tarry."

## REMARKS ON THE DUTIES OF THE MEDICAL EXAMINER IN LIFE INSURANCE.

BY DR. G. S. GLASSCO, HAMILTON.

When honored by our president with an invitation to read a paper before this meeting of the Ontario Medical Association, it struck me that the subject par excellence of which so little is said, and to which such a meagre amount of attention is paid, is that of life insurance from the standpoint of a medical practitioner.

Probably the great majority of us here are examiners for some or other life insurance companies, and I will venture to state that a goodly percentage of us are far from realizing the importance of the work in which we are engaged ; we rather regard that the proper time to do life insurance work is when there is nothing else to do, but I am sure that, did we appreciate the fact that it is upon the medical department of a life insurance company that the selection of risks must devolve, we would undoubtedly lend our best efforts, our best minds, and our best consciences to the cause which we represent.

I shall divide the few remarks which I intend to make into three headings : First, the selection of the medical examiner by the home office ; second, his duties to the agent ; and, third, his duties to the home office.

The agent of the company has the right to expect that due care will be exercised in the selection of the examiner to be associated with him. He knows in his own business that not every intelligent man can win success as a solicitor for insurance. He knows equally well that not every educated physician makes a satisfactory medical examiner, and painstaking effort should be made on the part of the company to choose a man who possesses in a fair degree those qualifications which make for success in examining for life insurance. It has been said on occasions that the average medical practitioner is not a good business man ; that his training unfits him for the great world of affairs ; that he is a theorist ; that he has a fondness for technicalities ; that when he is brought into the life insurance field he comes, not with the broad conception of his appropriate function and the object to be attained, but with his conceits, his fads, his professional squint, his disposition to mag-

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\* Read at meeting of Ontario Medical Association.

## 290 DUTIES OF THE MEDICAL EXAMINER.

nify trifles, so that he may become a very obstructionist, and even distinctly antagonistic in his tendencies. It is quite unnecessary to say that this view is a greatly distorted one. It is nothing more nor less than an unfair generalization from a very exceptional case. But, let me enumerate some of the necessary qualifications to be possessed by an ideal medical examiner.

First of all, he should be a man of good standing and character, highly regarded in the community as a capable physician and an honorable, temperate man. He must be accommodating and tactful. A friendly manner soon puts the applicant at his ease, and this will greatly aid the examiner in obtaining the information he desires. He must be young enough to be progressive, and old and experienced enough in dealing with men to know something of human nature to be able to estimate with some degree of accuracy the truthfulness of statements made to him; to decide that a man is well when he says he is sick; to bring to light evidences of disease if they exist in spite of efforts made to conceal them; to understand what are the real essentials of an insurance examination, and what data a company must have in order to reach a just decision. Keating has stated in a graphic way that he is the photographer who is to give a life-like picture of the applicant for a policy in his company, making the resemblance as life-like as possible, neither exaggerating the defects nor lessening their importance.

Now a word as to the duties of the medical examiner to the agent. After the physician has received his commission from the company and accepted it, the agent has the right to expect from him co-operation along the following lines: In case he is also examiner for other companies he will be broad enough, and fair enough, to treat them all impartially and avoid the appearance of lending greater influence and support to any one of them, or its representatives, than to another; that he will act with discretion in dealing with such matters as are brought to his knowledge, and will observe the requirements of business prudence in withholding from outsiders what should be regarded as agency secrets; that he will be ready at all reasonable times to help out the agent in making an examination, remembering that in no other business is the saying so true that you must "strike when the iron is hot." True, one may occasionally strike an unreasonable agent, who may ask you to leave an office full of people in order to complete an examination at once, but too often the doctor does not show his appreciation of the agent's hardships and disappointments by rigorously keeping his appointment.



Finally, the duties of the medical examiner to the home office. There are two factors which enter into the consideration of the medical examiner: First, to whom is he responsible? and second, what are his duties? The medical examiner is, or should be, a check to restrain the acceptance of bad risks. The agent, of course, is working to get all his risks accepted. He realizes that it is not well for the company to be loaded with bad risks, but he wants the loss from such risks to fall on some one else's shoulders. Therefore, the medical examiner should be under no obligation to anyone but the company itself. It is well that he should not be the family physician of the applicant. As you can understand, in a small town such a contingency can scarcely be avoided, but where a rejection by the home office is so often taken as a personal affront by the applicant, and even the agent, you can readily recognize the desirability of a business relation only to the applicant. Many an agreeable acquaintance, many a remunerative patron, many a good friend has had his eyes opened for the first time to a physician's villainy, or his professional imbecility, by an insurance rejection. It has always struck me that the very first duty of an examiner in the field is to assure himself that the party he is examining is the one applying for insurance. We find in no other financial transactions such a laxity in regard to personal identification as in life insurance. While I do not believe that frauds in this business accomplished by substitutes are remarkably frequent, we know that they do occur, and the examiner cannot be too careful in assuring himself that he is not an innocent party to a shady transaction.

The company does expect from its field examiner promptness of action. Competition for desirable insurance is so keen, and the applicants are so fickle and liable to change their minds, that it is of paramount importance to get a policy in the hands of the applicant, and the premium in the company's treasury just as soon after the application is secured as is compatible with safety. It is no uncommon experience with us to see what we know to be desirable business lost because some cog has slipped and delayed for two or three weeks the issuing of the policy. This statement makes it very evident that an examiner who awaits a convenient time to make an examination, who insists on the applicants always calling at his office, who delays attention to correspondence, and who will not use every possible effort to get an application promptly before the home office in satisfactory shape for action, no matter how competent he may be, loses very largely his value to the company.

Now, in conclusion, a word or two as to the acceptance of

risks. You must remember that the acceptance of poor risks is disastrous, meaning as it does absolute loss to the company, for which no provision has been made. Also that the refusal of a good risk is not only a grave injustice to the applicant, but a direct financial loss to the company, to say nothing of the disappointment and loss to the solicitor or agent, who oftentimes has to work hard and long to secure the application. But let me say right here that there is oftentimes too much regard for the solicitor on the part of the examiner, whether through friendship or the fear that examinations may be turned into another channel, and defects are either minimized or concealed. The examiner should have absolutely the courage of his convictions, and trust that the home office will see that he gets his share of the examinations.

I would suggest that the universities include in the curriculum of their medical faculties a course of instruction in life insurance examinations. The instruction of students in medical life insurance is within the province of the Medical College. The insurance companies feel that with the great financial interests involved, furnishing as they do employment to so many physicians, medical colleges will be adding to their already great achievements in the promulgation of medical scientific knowledge if they will couple with such instruction the training of students in life insurance examinations, thereby broadening and deepening the knowledge of the physician entering the practice of medicine, and creating a still wider interest in the medical school.

#### DISCUSSION ON FEES FOR LIFE INSURANCE EXAMINATION.

We owe a debt of gratitude to our professional brethren of St. Catharines for the loyal manner in which they stood together and held out for an increase of fee. The Association of Welland County, of which I am secretary, decided at a meeting held last winter to stand by them, and feel that our support had something to do in bringing about the raise of fees on the part of the companies. I do not think we should stand still, but continue to make efforts to have the fees made \$5.00, which, in my opinion, is little enough. The suggestion that the Ontario Medical Council take up the matter meets with my approval.

J. H. HOWELL.

*Mr. Chairman,*—I have done very little life insurance examining and perhaps am therefore properly qualified to speak on this question. After examining for a company at \$3.00 for a few months, I felt that the fee was too small. They did

not wish to pay the \$5.00, so I gave up the work. The surprise to me is that the companies are not alive to their own interests enough to voluntarily offer better fees and get better work done for them. It is a business transaction, and is a very vital procedure in connection with the business of life insurance.

The fee of \$5.00 is certainly the lowest that should be accepted for this work, and I am glad to see this stand being taken. We may not be able to do anything effective to-day or this year, but if we keep at it the necessary change for the better must come.

The Ontario Medical Council might help us in this matter, not by coercing the various members of the profession, but by approaching the several companies and presenting the claims of the doctors in such a way that some general increase in fees would result.

Personally, the insurance work is distasteful to me because I do not feel that I can do justice alike to the company and the applicant by answering the set form of questions, and would certainly accept nothing less than \$5.00 for examination work.

D. H. ARNOTT.

#### DISCUSSION ON FEES FOR LIFE INSURANCE EXAMINATION.

Dr. Acheson, Galt, reported for South Waterloo Association that it had been decided that \$5.00 should be minimum fee, and they wished some expression of opinion from the Ontario Medical Association on the subject.

In the matter of examining applicants at their own homes, he thought if within a reasonable distance from the office it should be done for the regular fee, but if at any distance mileage should be paid.

The great difficulty is medical men will not hold together and stay. We should have the Ontario Medical Council take up the matter of straight line and fraternal examination fees.

J. C. McALISTER,  
Jerseyville, Ont.

Dr. Pepler, Toronto, was in favor of a flat rate of \$5.00, as an examiner should give as careful an examination for \$1,000 as \$10,000. He spoke of the advisability of examiners making a specialty of this class of work in the cities.

When the Niagara District Medical Association applied to the committee for time on the programme to discuss fees for medical examinations for life insurance companies, we had notified the companies that our fee for the future would be a flat rate of \$5.00 for \$1,000 and upwards; that was towards the



end of March last. Since then, on May 6th, we agreed to accept a flat rate of four dollars. However, though the matter is settled for the time being, our association wished that some account of this effort for better fees should be reported.

The \$4.00 fee was agreed to in the Maritime Provinces quite a long time ago, and the insurance companies, instead of offering the same fee to Ontario, continued the \$3.00 fee until this agitation made them realize that something had to be done. Further, you must understand the Niagara district was not alone; the Ottawa Medico-Chirurgical Association, and the Ottawa Valley Medical Association had also taken independent action, and other parts of the province had also acted, each district for itself.

This agitation has been the means of bringing the medical men together; they get acquainted, and get to know one another, which is very much for their mutual good. And it would seem that the different districts should be in touch with one another, so that concerted action would be quickly possible at any future time when this question or some other of general importance comes up for solution. The Ontario Medical Association forms a bond of union, but we are loath to encroach on its limited time to discuss our business interests. It would seem to me that our business interests must be dealt with by district associations, but in many things, such as insurance examinations, fees, collection methods, public health matters, where general action is possible, our Ontario Medical Council should have power and take action.

## Selected Article.

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### A CLINICAL LECTURE ON HAEMOPTYSIS AND EMPHYSEMA.

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BY LEONARD WILLIAMS, M.D., M.R.C.P.,

Assistant Physician to the Metropolitan Hospital; Physician to the French Hospital in London.

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There are a great number of people going about who are supposed to be tuberculous, but who are, in point of fact, no more suffering from tubercle than they are suffering from elephantiasis. This woman is a case in point. Her age is 53, an age at which, I admit, tubercle is rather apt to lay hold of those who have a predisposition in that direction. It is the age of decreescence, the "gloaming of life," as the French artistically put it (*l'âge crépusculaire*), and it is when the vital forces begin to decline that the powers of resistance against tubercle become depressed.

This patient has been going about with a diagnosis of tubercle upon her for some twelve months, and yet she does not look tuberculous. She is not only well-nourished, she is even stout, and so far from being anæmic, she is florid. She makes no complaints of night-sweats, and has no tuberculous family history. But she coughs, and not only so, but she has had two or three attacks of hæmoptysis, and it was apparently on this combination that the diagnosis of tubercle was based. Now, it is scarcely necessary for me to insist that hæmoptysis is by no means necessarily tuberculous. The accident owns many causes, amongst them, and one of the commonest, being mitral stenosis. A person with mitral stenosis may very easily have a chronic bronchitis from back pressure on the lungs, so that, to the attacks of hæmoptysis, there is superadded a chronic and distressing cough. Hæmoptysis, even when accompanied by a cough, is therefore by no means necessarily due to tubercle. Another cause of hæmoptysis is high blood pressure, the blood in this case issuing not from the pulmonary, but from the bronchial vessels, which are branches of the thoracic aorta; and, as you know, a person with high blood pressure may bleed from anywhere. He may bleed from his bronchial vessels, he may bleed from his nose, from his gastric mucosa, from his kidneys, and even into his retina. But the patient before us has not got

any lesion at her mitral valve, nor is her blood pressure (150 mm. Hg.) sufficiently high to lead us to attach the responsibility for her hæmoptysis upon her bronchial arteries. When you come to examine her you will find that she has an enlarged liver, and you might be led to suppose therefrom that this was a case of hepatic cirrhosis. In the out-patient room people are not very accurate in their statements, and they frequently say that they have coughed up blood when they have vomited it, and *vice versa*. I think, on the whole, that they prefer to say that they have vomited it, because the vomiting of blood seems to them to be a more heroic proceeding than the mere coughing of it up. However that may be, it is often very difficult to be sure from the patient's description alone whether the blood has issued from the stomach or from the lungs. In this case, happily, no ambiguity is possible, for she has been seen by an intelligent observer to cough up three or four teaspoonsful at a time. The enlarged liver, therefore, is evidently not the cause of the hæmorrhage. A little careful questioning of this patient will show that she has been troubled with a cough for several years, that the cough is always worse in winter and better in summer, and that it is of a wheezy, breathless type, very different from the dry, hacking, spasmodic effort which characterizes tubercle. An examination of her chest shows that she has, in effect, a very decided degree of emphysema. You will hear all over the upper part of the chest the high-pitched inspiration and the prolonged low-pitched expiration which is so characteristic of the condition. The normal areas of dulness are very difficult to elicit. If you trusted to percussion alone you would imagine that the heart had shrunk to the size of a shilling. The upper border of the liver is impossible to make out; all over both bases behind are the moist, wheezy *râles* of a chronic bronchitis.

Now what is the relationship between a condition of this kind, which is all too common in out-patient practice, and hæmoptysis? If you will consider the pathology of the disease you will, I think, agree that we ought in reality to feel surprised that hæmoptysis does not more often occur. In emphysema the air-cells run into one another by the breaking down of their partitions, and in these partitions there are blood-vessels. When this breaking-down occurs, therefore, it ought not to surprise us to find that a rupture of the vessel ensues. And not only so, but when emphysema has been in operation for some years, the amount of room in the lungs in which the blood may circulate is seriously diminished, so that the capillaries which remain are liable to be much overcharged with blood. When we consider their delicate texture it is surely only to be expected that they



should occasionally rupture and give rise to hæmoptysis. Emphysema, in fact, especially when complicated with bronchitis, offers the same difficulty to the return of the systemic venous blood as is offered by mitral stenosis. The difference is one of degree only. The block in the one case, it is true, is at the mitral valve; in the other case it is just in front of the pulmonary valve. The difficulty which the right ventricle encounters in getting the blood out of its cavity into the pulmonary capillaries is very much the same as the difficulty encountered by the auricle in getting the blood out of its cavity into the left ventricle. The results in both cases are more or less the same—namely, the production of a back pressure. In the case of mitral stenosis the back pressure shows itself primarily in the lungs, secondarily in the liver, and finally by the œdema of the lower limbs. In the case of emphysema it is the right ventricle which shows the first signs of trouble, and, in order to overcome that trouble, it hypertrophies. The blood which cannot be forced through into the lungs is passed back into the liver, which then acts as a reservoir for the superfluous fluid, and the train of events with which we are familiar in mitral stenosis then becomes repeated—the œdema of the lower limbs and the ascites.

Now, this being the state of matters, one is led to inquire how it is that hæmoptysis does not more often occur in emphysema. We know that there is a great destruction to the pulmonary capillaries, and we know also that the right ventricle tries to force the unoxygenated blood into the area where it may expect to meet with the vivifying oxygen. The remaining capillaries very soon become stretched, engorged and degenerated, so that here, if anywhere, is a condition eminently favorable to a hæmorrhage. Why does that hæmorrhage not more often occur? Well, the explanation was long ago supplied by Rindfleisch, who showed that wide communications are formed between the pulmonary artery and the pulmonary and bronchial veins, thus relieving the tension in the former vessel and allowing the blood to pass through the lungs without undergoing proper aeration. This want of proper aeration is, of course, the reason of so much distress amongst those who suffer from this disease, and when they live in a climate like our own, more especially in large towns, where at best there is a deficiency of oxygen, and where they are subjected to additional difficulties imposed by fogs, the results of this deficient aeration become extreme; the lungs are irritated by their futile attempts to obtain the necessary vapor, and a state of chronic inflammation ensues.

Now, it seems to me that what is to be learned from a case of this kind is; in the first place, to beware of making a diagnosis of tubercle except on sufficient grounds. Hæmoptysis alone does not afford such grounds. With very little care one ought to be able to come to a conclusion as to the cause of an hæmoptysis within a day or two of its occurrence. One of the best means of helping us to a conclusion is the use of the hæmanometer. In the case of an hæmoptysis where the blood pressure is low, one certainly has good ground for grave suspicion. The bacillus of tubercle is a vaso-dilator; a tuberculous person almost invariably has a subnormal blood pressure. Where, on the other hand, the blood pressure is high, one may always assume that the blood has issued not from the pulmonary, but from the bronchial vessels—that, in fact, the hæmorrhage is due to what Sir Clifford Allbutt calls hyperpieses, to high arterial tension, and not necessarily to any organic disease. Where the blood pressure is at, or about, the normal level, one may be in the presence either of emphysema or of mitral stenosis. It rather depends upon the stage of either of these diseases what the blood pressure will be. In not very advanced cases the blood pressure may be low; in very advanced cases it may be high. But in a general way it is not conspicuously one or the other.

In our endeavors to exclude tubercle as a possible cause, we ought never to neglect the simple expedient of examining the sputa for the bacillus. I need not remind you that a negative result must not be regarded as conclusive; that it is necessary to repeat the examination two or three times; whereas from a positive result there is no appeal. But even where no positive result is obtained, there are other means of coming to a conclusion about the existence of commencing tuberculosis.

The mistake in diagnosis from which this woman has been suffering has resulted in a considerable aggravation of her difficulties. She has been fed on stimulating foods, and has been given stimulating and tonic medicines. This is, of course, the very reverse of what should have been done for her. Having regard to the fact that she has had more than one attack of hæmoptysis, it looks as if the communications described by Rindfleisch as being generally formed between the pulmonary artery and the pulmonary and bronchial veins, have not been formed in her case, so that the back pressure is obliged to relieve itself by these hæmorrhages. Obviously, therefore, the first thing to do, if you can get your patient to consent, is to perform venæ-section. If she will not consent (and not many of them will),

you must have recourse to other forms of depletion: mercurial and saline cathartics freely administered and often repeated; a diet which is unattractive and unstimulating must also be insisted upon, for a time, at any rate; and, if it can be managed, she should be removed to some locality where the climate is more equable and the air is purer than it is in the north-east of London.

So far as drugs are concerned, there is not to my mind anything which can compare with the iodide of potassium. This, when combined with a little camphor and a little ammonia in an infusion of senega, acts more helpfully than anything else. There is in this case, of course, another factor which we cannot altogether leave out of account, and that is her age. She is at, or about, the change of life, and we must be careful in giving her medicaments and in prescribing for her *regimes*, that we do nothing to intensify the difficulties incidental upon that period. Fortunately, everything that I have suggested up to the present time is not in any degree contra-indicated by such a consideration. They are, indeed, all measures which are proper to the treatment of the menopause. If, however, any difficulties did arise, either as complications or otherwise—difficulties, I mean, of the functional neurotic type—the addition of some bromide of potassium to her medicine would in all probability speedily dispel them. There is another drug of which I have not yet had sufficient experience to speak with confidence, but of which I may say that it seems to offer considerable advantages, and that is valerianite of menthol. But of all the drugs which are useful at this time, probably none is more efficacious than a really active preparation of ovarian extract.—*Medical Press Circular*.



# Progress of Medical Science.

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## MEDICINE.

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IN CHARGE OF W. H. B. AIKINS, F. A. CLARKSON, AND BREFNEY  
O'REILLY.

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### **Medical Gymnastics in Myocardial Disease.**

Babcock discusses the cardiopathies encountered in men generally of large physique who lead sedentary lives and are, in addition, hearty eaters and heavy smokers. These men generally take on weight and display an abdominal girth out of proportion to the chest development. In a certain percentage of these cases the men have been athletes at college, but on entering professional life have neglected physical exercise entirely. In the majority of instances they possess indomitable energy and almost tireless activity, and display a systolic blood pressure that is up to, if not above, the normal limits. In the late fifties or early sixties these men consult the physician for relief from symptoms which betoken long-continued and at length injurious cardiac strain. The entire cardio-vascular system is affected, though not uniformly. The kidneys also are involved, though in the cases referred to in this paper the renal inadequacy is overshadowed by the cardiac symptoms. Occasionally the coronaries are so involved as to present symptoms of angina pectoris. Babcock sends patients of this type to a medical gymnast to whom he had explained the end to be attained. The gymnastics to which the patients are subjected are of the kind investigated by Levin, who showed that if certain simple exercises were given properly it was possible to slow and strengthen the pulse instead of accelerating it, a very vital principle in these cases. The exercises given consist in both active and passive movements, according to the degree of myocardial incompetence present. The former comprise certain rolling and bending movements of the trunk executed by the gymnast, who, standing behind the individual seated on a wooden horse, with his feet held firmly by toe-straps, grasps the shoulders and firmly, yet not too vigorously, bends the body forward and then rolls it around to the opposite side in a backward direction, in such manner that, flexed in the beginning, the trunk becomes extended when the movement is half completed, and ends again

in a position of strong flexion. To these may be added passive flexion and extension of the extremities, and alternate expansion and compression of the chest, very much after the manner of performing artificial respiration. The active exercises, which in all cases are gentle at first and performed by the help of the gymnast, and only by degrees increased in vigor, consist in deep breathing, in bending, pulling, lifting, etc., on a horizontal bar or ladder, or such other movements as in the judgment of the gymnast will promote respiration and venous flow and reduce the girth of the abdomen. But whatever be the kind of exercises, one essential principle underlies them all, namely, the patient must not be allowed to hold his breath, but must breathe regularly and deeply in rhythm with the movements so as to inspire or expire according as the exercises expand or contract the chest and depress or raise the diaphragm.

The purpose of these exercises is not the development of the skeletal muscles, but the restoration of the functional integrity of the myocardium, and this they accomplish more or less effectively, not only by increasing venous flow on the one side and by dilating the intermuscular arterioles on the other, but also by improving cardiac metabolism. Of course, the degree and permanence of the improvement must depend largely on the state of the heart muscle. If this is extensively degenerated, no amount or kind of treatment can be expected to achieve much, and such improvement as is gained can not last long. In such cases, therefore, if dilatation and inadequacy are pronounced, the so-called resistance exercises are preferable, although to these may be added with advantage such deep breathing movements as, with the aid of a trained attendant, can be performed without danger of strain to the heart wall. As might be expected, the most pronounced benefit has been observed in cases of early or moderate myocardial incompetence, shown by breathlessness, or palpitation on slight cause, and on examination by increased cardiac dullness, feebleness of the first tone at the apex, accentuation of the pulmonic second sound, and sometimes a faint systolic whiff in the mitral area. In most, but not all cases, the blood pressure is elevated above the normal. In such cases the first indication of improvement is shown by the greater ease of respiration and a general sense of ease or lightness. Energy is increased and fatigue comes less easily, while a better action of the bowels and a diminution of waist measure are generally observed. Babcock states that his experience with medical gymnastics in cases showing early incompetence of the myocardium warrants him in recommending

them, if properly controlled, and in asserting the belief that, if these and allied physical exercises were used more extensively and systematically by men of the build and habits to develop chronic myocardial and arterial disease, they would delay, if not prevent, the onset of cardiac inadequacy.—*Journal of Medical Sciences and J.A.M.A.*

### Hypodermic Use of Mercury in Tuberculosis.

This hypodermic use of mercury in tuberculosis has been advocated by B. L. Wright, U. S. Navy. In a recent article (*U.S. Naval Med. Bulletin*, July, 1908) he gives the following description of the technic:

"The preparation of mercury used is hydrargyrum succinimidum. Just before the injections are to be given distilled water is boiled for at least twenty minutes. A solution is then made so that 0.64 cc. (min. x) will be equivalent to gm. 0.013 (1-5 grn.) of mercury succinimide. The syringes and needles are boiled for twenty minutes.

"The skin of the patient's buttocks is scrubbed with hot water and tincture of green soap, then washed with alcohol, followed by ether, and this in turn by a solution of bichloride of mercury (1 to 3,000). The surgeon's hands are prepared as for any operation, and sterilized rubber gloves are worn. The patient being in a prone position on the table, the needle is driven deeply into muscle tissue by a quick downward plunge. If no blood escapes from the butt of the needle, the syringe is put in place and the drug is injected. If blood escapes, a vein has been punctured, and the needle is therefore withdrawn and inserted at another place.

"It has been our custom to start with gm. 0.013 (1-5 grn.) of the drug, and to repeat the injection every other day until 15 injections have been given; then to give gm. 0.026 (2-5 grn.) every fourth day until 15 more injections have been administered; then to give gm. 0.039 (3-5 grn.) once a week indefinitely. It is advantageous in some cases to give short courses of potassium iodide at varying intervals in conjunction with the mercury.

"The above procedure cannot be considered a hard-and-fast rule of routine, for some cases require larger doses and some smaller, and in this the physician must be guided by experience and close observation."

In a later article Wright says (*N. Y. Med. Jour.*, Aug. 29, 1908):

"Since the publication of my second report we have modified



the procedure for the administration of mercury as follows: We now give an injection every other day until thirty injections have been given, then follow by a two weeks' course of potassium iodide, gm. 0.64 (10 gm.) thrice a day, then one week's rest from medication, after which we resume the injection and repeat. This is giving us the most satisfactory results."

Good results are reported by Wright, but the method must be regarded as still on trial.—*Jour. A. M. M.*

### Clinical Forms of Arterio-sclerosis.

Huchard considers that atheroma is to be separated from arterio-sclerosis. Atheroma is a disease of old age, 60 to 80, and the clinical history is that of vascular disease. Arterio-sclerosis occurs between 30 and 60, and the patients suffer from visceral disease, so that the name arterio-visceral-sclerosis is a better one.

Huchard points out that there is a sharp distinction, anatomically, clinically and pathologically, between the cardiopathies dependent on valvular endocarditis and those of an endo-arterial origin. In the latter, toxic symptoms are present to the end, inadequate functioning of the organs, tendency to hypertension with all its dangers, until the last period, characterized by incompetence of the mitral valve, and hypotension with the frequency of coronary stenocardia and sudden death.

Infectious diseases, with their toxic action, greatly add to the gravity of the toxic state which accompanies arterio-sclerosis. The five chief causes are gout and uric acid, lead, syphilis, alimentary disorders and tobacco.

The clinical evolution passes through four periods: pre-sclerotic, cardio-arterial, mitro-arterial, and stenocardia.

The pre-sclerotic stage is characterized by intoxications, arterial hypertension, inadequacy of visceral functions, intermittent claudications and painful accidents. Great importance attaches to the renal functions, impairment of which favors toxic retention and augmentation of the arterial tension. Latent atrophic kidney disease is revealed by chloride retention.

In the cardio-sclerosis the symptoms are of much more importance than the physical signs, thus in the incompetence of the mitral valve from arterio-sclerosis, the bruit indicates the mitral orifice as the site of the disease, but the patient is really suffering from an arterial lesion.

Cardiac disease of rheumatic origin may become associated with the arterial cardiopathies, and then a new evolution of the disease commences.

Asthma and emphysema may determine the symptoms of toxæmia and cardiac asystole if pre-existing arterial disease is present.

There is a dyspnœa, toxic and alimentary in origin and due to renal inadequacy, quite different from uræmic dyspnœa and often associated with a tachyarrhythmia quite characteristic of arterial cardiopathic disease.

#### *Treatment.*

1. In the first period of pre-sclerosis, treatment must be directed to toxæmias by strict diet, milk or milk and vegetables. All foods rich in nuclein must be avoided. Diuretics are important, especially theobromine. For hypertension massage, gymnastics, hydropathy, diuretic waters, carbonic acid baths, and the nitrites. Iodides are useless and hurtful during this stage.

2. In the second period, characterized by the manifest lesions of the vessels, the heart and kidneys, the toxæmic symptoms are more pronounced, toxic alimentary dyspnœa with insomnia and tachycardia or arrhythmia. Here the diet should be milk and vegetables, and salt interdicted. Even exclusive milk diet may be necessary. All treatment which favors elimination by the bowels, skin and kidneys is indicated. In addition to the nitrates, iodides in small doses, 0.2 to 0.5 ctg., for 10 to 15 days in a month may be given.

3. The third period is characterized by cardiac dilatation, lowering of the arterial lesion, tendency to dropsy and œdema of the viscera. The symptoms are a combination of toxæmia and hyposystole; dyspnœa may be constant and intense and albuminuria marked. Acute œdema of the lungs may occur, necessitating a large venesection. Repeated doses of digitalis are now required, and the diet should be exclusively of milk.

4. The fourth period is that of cardiectasy, the heart is greatly dilated and the œdema considerable; neither digitalis, theobromine, or other diuretics, are now active. Hydrothorax, œdema of the lungs, and congestion of the liver, are present. In this stage the essential requisite is to reduce the amount of liquids.—HUCHARD (M.), *Gaz. des Hôpît., Medical Chronicle.*

#### **Fibrolysin in Spondylarthritis Deformans.**

Most cases of deforming spondylarthritis seen by G. Müller were of the progressive type, and all treatment did little good, until fibrolysin was used. The case, given in full, was that of a woman thirty-nine years old who first noticed pains in the

vertebral column, with a slowly developing curvature. When seen for the first time by the author there was pronounced anemia and hypophosis of the entire vertebral column; marked restriction of the movement of the arms in the shoulder joints and of the hips, and complete immobility of the dorsal and lumbar portions of the vertebral column. Pressure here and upon the dorsal muscles was very painful. Warm baths, massage, and gymnastics were used for six weeks without the slightest improvement, though the patient could walk a little better, with a suitable corset, which supported her back. Finally the corset could no longer be tolerated, and her arms became absolutely useless. As a last resort 20 injections, each of 2.3 Cc. fibrolysin, were made into the gluteal muscles during the course of four weeks. The results were astonishing, in that both active and passive motion improved steadily. The gait of the patient was again elastic, and the arms could again be brought up to the horizontal plane. Respiration became more free, and the curvature of the spinal column appeared less pronounced. The hip joints showed free mobility, and all tenderness had disappeared. The general condition and the anemia of the patient improved rapidly.

Müller concludes that fibrolysin is a specific for this condition.—*Med. Klinik*, 1909, No. 3.

### The Sign of "Tapotage" in Pulmonary Phthisis.

In 1904 Erni described a symptom which frequently exists in pulmonary tuberculosis. In certain cases percussion—above all in the subclavicular region—will excite immediate cough and expectoration. Molle (*Lyon Méd.*, February 7th, 1909) has observed this sign of tapotage in several cases, and disagrees with Erni's opinion that the sign is distinctive of a subjacent pulmonary cavity. He found it in one case of early tuberculous infiltration in which cavitation was extremely improbable, and was not shown by any other sign. On the other hand, "tapotage" is frequently absent where a cavity undoubtedly exists. Nevertheless, the sign is by no means without diagnostic value. Molle has found that it is associated with the neuromuscular hemiparesis, such as Weil and Jacquet have described in pulmonary tuberculosis; it presents the same characteristic variability and inconstancy, and is due to a hyperæsthesia of the subjacent pulmonary parenchyma, the area of which is the same as the area of hyperæsthesia of the relatively superficial structures such as the muscles and nerves. The cough is, then, reflex rather than of mechanical causation.—*British Medical Journal*.



## OBSTETRICS AND GYNECOLOGY.

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IN CHARGE OF ADAM H. WRIGHT, K. C. M'ILWRAITH, FRED. FENTON  
AND HELEN MACMURCHY.

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### On Tubal Moles.

The formation of a mole in the Fallopian tube, that is to say, the conversion of a tubal gestation into a mass resembling a common carneous mole, is a not infrequent termination of an ectopic gestation. It is a far commoner occurrence than rupture of the tube, and it is quite possible that it happens more frequently even than we know of. It is only in the cases which end by extrusion of the mole from the abdominal ostium of the tube accompanied by peritoneal hemorrhage (tubal abortion) that the condition is evident, though moles are occasionally discovered when an operation is undertaken for "unruptured tubal gestation." The knowledge acquired in recent years of the pathological anatomy of ectopic gestation, and of the method of embedding of the fertilized ovum in the uterus as well as in the tube, has done much to clear up the difficult points in connection with the fate of a gestation sac in the Fallopian tube. Formerly rupture of the tube was looked upon as the usual fate of a tubal gestation, but now we know that this is a comparatively infrequent ending, and that mole formation, with or without extrusion from the abdominal ostium, is the commonest termination.

To understand this conversion of a tubal gestation sac into a mole, we must have a clear understanding of its anatomical relations to the tube. Recent research has shown that the fertilized ovum embeds itself in the wall of the tube in exactly the same manner as in that of the uterus. The early embryo is covered by a sheet of protoplasm, full of nuclei, but devoid of cell divisions, which is known as trophoblast; and having what may be called "phagocytic" powers, the trophoblast eats away the tissues in contact with it. Thus the embryo bores its way into the actual wall of the tube, beneath whose epithelium there is a very thin layer of connective tissue, so that it soon reaches the muscular coats. During this process the embryo and its coverings enlarge, so that the chorionic sac is soon larger than the hole through which it entered the tube wall. Thus the margins of this hole become expanded over the chorionic sac, and a kind of reflexa now known as the "capsularis"

is formed. This capsularis may contain muscle fibers, showing that the embryo and chorion have entered the muscle layers. During this embedding process blood-vessels are of necessity encountered, and in general, the eating away of their walls gives rise to the formation of small "blood islands" in the trophoblast itself, completely surrounded by trophoblast, and forming the earliest evidence of a maternal blood sinus, into which the villi afterwards dip. If this process of eating away the wall of the tube goes on sufficiently long, it must of necessity happen that the tube wall is at last quite destroyed on one side, and consequently rupture occurs and hemorrhage follows. But before this happens, in the majority of cases the opening up of blood-vessels gives rise to hemorrhage, not only into the trophoblast, but outside its area into the potential space between the advancing trophoblast and the tube wall. This blood coagulates around the villi of the trophoblast, compresses the small amniotic sac and eventually forms an almost solid mass, whose structure is essentially similar to that of a uterine carneous mole.

The great and sudden accession of bulk thus produced in the tube leads to distention and consequent pressure on nerve endings, and is the cause of the premonitory pains in the pelvis which are classical and which herald the final end of the condition. It is this pain, together with an unusual lump in the pelvis, with perhaps one missed menstrual period, which make up the clinical picture and provide grounds for operations in certain cases. We know very little about the fate of tubal moles which remain *in situ* and do not cause peritoneal hemorrhage. It is highly probable, however, not only that they do occur, but also that after a period of pelvic discomfort they are slowly absorbed, with complete restoration of the tube lumen. The more common fate of a tubal molé, however, is extrusion from the abdominal ostium, or hemorrhage into the peritoneum through the lumen of the tube and formation of a hematocele without actual extrusion of the gestation sac. In cases when the gestation sac is situated in the ampullary end of the tube, the gradual enlargement of necessity opens up the abdominal ostium. Sooner or later the gestation sac must protrude through the ostium, and when the greatest diameter is past the ostium the tube wall retracts by muscular action or elasticity, and the embryo and its coverings are extruded (tubal abortion). This means separation from its attachments and consequent hemorrhage. The amount of peritoneal hemorrhage

in these cases is not nearly so great as in tubal ruptures, and being more slowly poured out forms a localized hematocele around the abdominal ostium (peritubal hematocele). This is the condition so commonly found upon opening the abdomen in suspected cases. The denouement is not dramatic in all cases, as in tubal rupture, but may occur so gradually as to give very few symptoms. The condition then is only diagnosed after several days or weeks when adhesions have formed, and the hematocele begins to cause pain by pressure and traction, accompanied, as a rule, by prolonged uterine bleeding. In other cases partial separation of the mole from its attachment causes hemorrhage which may at once find its way into the tube lumen, and so to the peritoneum, or may track along the muscle layers until it reaches the peritoneum. In this way again a peritubal hematocele may be formed if the blood issues from the abdominal ostium, or a paratubal hematocele if the blood tracks along and perforates the peritoneal coat. It is possible that an embryo may not be wholly separated from its attachments by these accidents, and as a result may be just sufficiently nourished to go on growing. In this case further hemorrhage may occur at a later date, or the embryo, by extending its area of attachment may even go on to an advanced period of pregnancy.—*Buffalo Medical Journal*.

**The Pathogenesis of Eclampsia and its Relation with Normal Pregnancy, with Dropsy, and with the Kidney of Pregnancy.** (Die Pathogenesis der Eklampsie, und ihre Beziehungen zur normalen Schwangerschaft, zum Hydrops und zur Schwangerschaftsmire.) A. Dienst, *Archiv. für Gynäkologie*, last indexed volume.

In an extensive monograph, Dienst analyzes critically the origin of eclampsia. His investigations concerned themselves essentially with (a) The molecular concentration of the blood, (b) The white blood-cells of the blood, (c) The ratios between serum-albumin, serum-globulin, and fibrinogen.

In regard to the molecular concentration of the blood, he found that the freezing points of eclamptic blood and blood of normal pregnant women were practically the same. From this he infers that whatever substances are retained in the blood of eclamptics, *must be* of large molecular composition, *i.e.*, colloidal in nature. After studying the white blood-cells in numerous patients, he presents the *well-known* fact, that a *moderate* leukocytosis exists during pregnancy; often a *marked one*



during labor, and a *considerable* one in the early puerperium. He accentuates, moreover, the fact—but little recognized—that in eclampsia, a sharp rise in the total leukocytes, as well as in the polymorphonuclears, is to be expected. In some cases, the leukocytes have been as high as 45,000.

Dienst's studies on the ratios of the different albumins in normal pregnancy, and in eclampsia, were very thorough. The total "albumin content" of the blood in non-pregnant healthy women was found to be 6.66 or 8.11 per cent.; the total albumin content in healthy pregnant women 6.9 or 8.2 per cent.

The ratio between the serum-albumin and the serum-globulin, in healthy non-pregnant women, was 1.02 to 1.97 per cent. as against 1.48 to 1.54 per cent. in healthy pregnant women (no change practically). The amount of fibrinogen in the non-pregnant was 0.31 per cent., while in the pregnant it was 0.45 per cent. (slight increase). In four eclamptics examined, the total albumin per cent. of the blood-plasma was found to be *slightly lower*, viz., an average of 6.71 per cent., as against 7.64 per cent. (normal pregnant average). The loss was rather more in the serum-globulin than in the serum-albumin. The *fibrinogen* in three of the four eclamptics that lived, showed a *marked increase* over the normal-pregnancy average, viz., 0.53 per cent. In the case that died, the per cent. of fibrinogen was lessened.

This fibrinogen cannot come from the fetal blood, as the latter was found to contain less than the maternal. Dienst believes that it *must come* from the maternal surface of the placenta, and offers the probable conclusion that eclampsia is due to an *over-accumulation of fibrinogen and fibrin ferment in the blood*.

He believes that the increased metabolic requirements of pregnancy induce a hyperleukocytosis, with a resultant destruction of leukocytes, in excessively large numbers. This increased destruction of white cells liberates unusual amounts of fibrinogen and fibrin ferment.

Dienst considers that the placenta is the seat of greatest destruction of the leukocytes and it is in consequence in the retroplacental blood that the greatest percentage of fibrinogen is to be found. The fibrinogen and fibrin ferment are considered to have a pernicious effect upon the endothelial lining of the small blood-vessels throughout the body, but especially in the liver, kidneys, and brain. As soon as the body is unable to cope with this increase of fibrinogen and fibrin ferment, insuf-

iciency takes place, particularly on the part of the liver and kidneys; a vicious circle is set up, and as a result, we find dropsy, albuminuria, eclampsia *with or without* convulsions, developing.

In the treatment of the condition, Dienst suggests a restriction in the salt-intake of the body, as well as in albuminous substance. He believes in the use of morphine. Finally, he advises the early rapid emptying of the uterus, both of child and placenta,—for the latter he believes to be a storehouse of fibrin ferment and should be delivered therefore at once after the birth of the child, before any additional supply may be thrown into the general system.—RALPH WALDO LOBENSTINE, in *Surgery, Gynecology and Obstetrics*.

### **Collargol Enemata in Septic Affections.**

Curt Seidel, (*Deutsche med. Wochenschrift*, July 30, 1908,) says: The introduction of collargol into the system by the inunction of unguentum Credé develops a gradual effect and its employment is limited in cases of emaciation and in painful affections. Hence this method is indicated in mild to medium severe or localized and in chronic or subchronic infections. The intravenous injection of collargol, though the sovereign method in grave cases where a rapid and intensive effect is necessary, is often technically difficult. In such cases collargol is often advantageously administered per rectum as originally proposed by Loeb (Schlesinger's division of the Vienna Franz-Joseph Spital) in puerperal sepsis and endorsed by Witthauer in joint rheumatism.

Given by enema, collargol is, of course, less rapidly absorbed into the blood and tissue fluids than when injected intravenously; moreover, the entire quantity is rarely absorbed. Hence a correspondingly larger dose must be used per rectum.

Collargolum enemata have been given by Seidel in over 100 extremely severe cases, such as were formerly treated with collargol intravenously. He gives the case histories of eight typical ones. The treatment almost never fails, not even in very grave cases, if it is only pushed with the necessary vigor and persistence—a fact which Seidel desires to impress on those physicians who have spoken disparagingly of collargol after they saw no result from their timid and small doses. Collargol is, of course, no panacea; just as a rheumatism or a malaria can not be cured with a single dose of a salicylate or quinine, just so is it irrational to expect a sudden recovery from a sepsis or pyemia after one insufficient or delayed administration of collargol.

Seidel's cases showed that collargol enemata have a material, if not a decisive, influence on the favorable course of severe affections. They produced a rapid improvement in the general condition, return of sleep and appetite, and remission of fever, more or less quickly in accordance with the severity of the case. Self-deceptions are wholly excluded with one who has thoroughly studied collargol therapy.

Seidel gives the following directions for collargol enemata: (1) A cleansing clyster with warm soap suds. (2) Fifteen minutes after the rejection of the clyster and passage of the fecal residue, a careful irrigation with sodium chloride solution is made, to remove intestinal mucus. (3) Fifteen minutes thereafter an enema of 30 to 75 grains of collargol in two to four ounces of warm boiled water, once or twice daily. This is for severe cases; the dose in milder or chronic ones is 15 to 30 grains. (4) Upon the appearance of the effect, the dose is diminished, but the enemas should be continued for at least two weeks. In case of recrudescence, immediate resumption of the treatment, if the relapse is not due to abscess formation or other local process.

Rectal application of collargol, which leaves nothing to be desired in simplicity and convenience, is indicated not only in septic processes, but also in infectious diseases, and mixed infections. He enumerates rheumatism, pneumonia, typhoid fever, septic scarlatina, septic diphtheria, anthrax, leprosy, cerebro-spinal meningitis, dysentery, infectious gastro-intestinal catarrh (particularly in children), and other general local bacterial invasions such as angina, phlegmon, erythema nodosum, erysipelas, and septic nephritis.—*New York Medical Journal*.



# Editorials

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## ONTARIO MEDICAL ASSOCIATION.

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We desire again to remind our readers that the next meeting of the Ontario Medical Association will be held June 1-2-3 in the Medical Building of the University of Toronto. In connection therewith we offer our congratulations to the Committee on Business and Papers on their success in presenting the best programme that has ever been prepared for any medical meeting in Canada.

In support of this statement we shall call attention to some of its features. It fortunately happens that our friend Prof. Osler will be in America at that time, and has kindly promised to deliver the address in medicine. The address in surgery will be delivered by Dr. J. B. Deaver, the well-known surgeon of Philadelphia. He will deal with "acute septic peritonitis," a subject of special interest because of the extreme gravity of the condition, and also because of the great differences of opinion now existing as to the best methods of treatment. The indications are that the discussion following Dr. Deaver's address will be neither tame nor cold; in fact, we are told that it will be red hot, although we do not understand exactly what that means.

Dr. Emmett Holt, the well-known author and teacher of pediatrics in New York, will deliver an address on "Results of the Serum Treatment in Cerebo-spinal Meningitis." Dr. J. Alder, well-known as a teacher of medicine in New York, will deliver an address.

Dr. C. H. Vrooman, of Winnipeg, will read a paper on "The Use of Hyoscine and Morphine in Obstetrical Work." This is a very interesting subject much discussed at the present time, and Doctors Vrooman and Halpenny (also of Winnipeg) have been making a special study of it in a practical way for more than a year. We think the committee is fortunate in obtaining Dr. Vrooman's consent to giving the results of their investigations at this meeting.

Dr. Herman E. Hayd, of Buffalo, will read a paper on "Umbilical Hernia and its Operative Treatment with Special Attention to the Mayo Treatment."

Dr. F. W. Chapell, an eminent specialist from New York, will read a paper before the section on disease of the eye, ear, nose and throat.

Dr. A. R. Robinson, the well-known dermatologist, of New York, will deliver an address on "Tubercular Lesions of the Skin."

Dr. W. P. Manton, of Detroit, will read a paper on "The Ultimate End of Surgery with Special Reference to the Surgery of the Pelvic Organs in Women."

Dr. E. W. Cushing, of Cleveland, will deliver an address on "Copious Water Drinking in the Treatment of Typhoid Fever."

Dr. Ellice MacDonald, of New York, will read a paper on "Diagnosis of Genito-Urinary Diseases of Women." Dr. MacDonald was requested by the committee to speak on this subject because of the valuable work he has done in connection therewith during the last two or three years.

We have pleasure in stating that three of our friends from Montreal will read papers, namely, Doctors J. M. Elder, F. A. Lockhart, and Herbert M. Little.

We have much pleasure in adding on behalf of the committee that many physicians and surgeons in different parts of Ontario have kindly consented to read papers and take part in the various discussions.

The provisional programme has been prepared, and the secretary is now sending it to the profession.

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## HOSPITALS AND CHARITIES.

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We have received the thirty-ninth Annual Report of the inspector, Dr. R. W. Bruce-Smith, upon the hospitals and charities of the Province of Ontario. The general remarks on hospitals, refuges and orphanages are very interesting. We

think it worth while in this connection to publish in full his remarks respecting the hospitals in the city of Toronto. He says: "Reference must again be made to the urgent need that exists in Toronto hospitals for better accommodation for the sick poor. Many of the public wards are so crowded that it is impossible to satisfactorily carry on the work, and conditions are tolerated that would not be permitted elsewhere. It is not fair to the other public hospitals of Ontario, which have been forced to maintain a proper standard of equipment in buildings in order to receive the annual government grant, that Toronto hospitals are permitted to display the indifference which seems manifest towards the need for improving the accommodations for the sick poor. Conditions as they are at present, and as they have been for some time, cannot be allowed to continue. There should be at the entrance to each public ward a card on the wall stating the number of cubic feet therein and the number of patients allowed in that ward. The number of cubic feet per patient should never be less than 1,500, with facilities provided for ventilation that will permit the air of the ward to be completely changed at least once each hour. The monthly return to the Department should show whether the capacity had been exceeded; and the Government grant would be allowed only for the number of public ward patients that there was authorized capacity for. I recommend that such a regulation as the above be authorized and put in force, for there is no reason whatever that the sick poor of Toronto should not be cared for in as sanitary surroundings as in the public hospitals in the other cities and towns of Ontario. Why should Toronto hospitals not afford as good accommodation for their public ward patients as is provided at London, Ottawa, Brockville, Sarnia, Lindsay, Stratford, and scores of other places in the province?"

We are not, in a way, very much surprised to note that our hospitals in Toronto are in some respects in a very unsatisfactory condition. We are, however, somewhat surprised to find that all other cities and towns in the province rank higher than Toronto in that regard. Wonderful improvements have been made in many hospitals of the province, and many beautiful



and clean little hospitals have been built in recent years in many of the small cities and towns. We learn from all quarters that these places are as a rule managed in an admirable way.

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### RESPONSIBILITY OF HOSPITALS.

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We learn from the lay press that Mr. Justice Grantham gave a remarkable decision in the law courts, London, England, recently, which amounts to a declaration that, on the ground of public policy, a hospital cannot be sued for damages. An action was brought by Dr. W. H. Hillyer, who claimed damages against the governors of St. Bartholomew's Hospital. He asserted that while an operation was being performed on him for sciatica in the hospital, his left arm was allowed to hang down, and coming into contact with the heating apparatus of the operating table, was severely burned, and also that his other arm was badly bruised by someone pressing against it.

His counsel, in addressing the court, said :—"It will shock the public to know that by gross negligence on the part of a great institution like St. Bartholomew's Hospital this man is paralyzed. He will never be able to practise as a physician again." After considerable evidence had been given in support of Dr. Hillyer's claim, Mr. Justice Grantham stopped the case with the declaration, "I hold there is no case to give to the jury. It would be a policy fatal to give to the country, and the injury done would be untold, if I allowed this case to go to the jury." Judgment was then given against Dr. Hillyer with costs.

A correspondent, in commenting on this, says :—"It is nice for the hospitals, but very bad for the patients," and asks the following questions: Is a patient under an anæsthetic perfectly helpless against any kind of negligence or carelessness in a hospital? Can the officials legally cremate him alive, or only scorch him enough to injure him for life?

The *Medical Press and Circular*, in commenting on this case, says :—"With all due deference to the judicial view, we venture to think that there are certain responsibilities con-

nected with the discharge of public duties by hospital governors whether assumed in the case of charity or otherwise.

"The failure of treatment to effect relief or cure is a matter for which a hospital cannot be responsible, but we imagine that the mere reception of the patient implies that the governors are responsible for reasonable skill and care in the carrying out of all treatment that may be required."

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### THE "OLD BOYS" OF TORONTO GENERAL HOSPITAL.

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The ex-House Physicians of the Toronto General Hospital held their annual meeting in Toronto April 12th. At the regular meeting of the association, held in the afternoon, Dr. Alexander Taylor, the president and first interne surgeon of the hospital, read a very interesting address, which we are glad to publish in this issue. Dr. Thomas S. Cullen, of Baltimore, also delivered an interesting address. At the banquet, which was held in the evening in the King Edward Hotel, the following were present :—Alex. Taylor, '69-70; E. Meek, '89-90; Geoffrey Boyd, '91-92; A. B. Wright, '03-04; Chas. A. Page, 1899-1900; J. H. Mullin, '97-98; D. A. L. Graham, '06-07; R. Nichol, '97-98; W. E. Gallie, '04-05; H. S. Hutchison, '01-02; W. S. Fawns, '05-06; H. Glendenning, '06-07; Herbert Wilson, '08-09; W. H. Lowry, '02-03; Adam A. Beatty, '96-97; S. H. Westman, '96-97; R. H. Robinson, '70-71; T. H. Middlebro, '92-93; F. G. Thompson, '88-89; Chas. M. Stewart, '98-99; N. P. Bradley, '98-99; J. N. E. Brown, '92-93; Thos. S. Cullen, '90-91; Chas. F. McGillivray, '90-91; Samuel Johnston, 1902-1903; Colin Campbell, 1899-1900; D. McGillivray, 1898-1899; G. H. McLaren, 1900-1901; C. H. Bird, '93-94; E. S. Ryerson, '01-02; G. E. Smith, '04-05; A. J. Mackenzie, '00-01; Chas. Hair, '04-05; R. J. MacMillan, '08-09; J. A. Kinnear, '07-08; W. B. Hendry, '04-06; C. B. Shuttleworth, '94-95; Charles Trow, '85-86; H. C. Parsons, '92-93; Arthur E. Ardagh, '88-89; J. Sheahan, '95-96; D. Anderson, '01-02; T. Alex. Davies, '05-06; H. B. Anderson, '92-93.

### FIRE DRILL IN SCHOOLS.

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We have recently learned that the fire drills in the Public Schools of Toronto are well conducted. The discipline existing among the scholars is very satisfactory. The trustees, in consequence, do not fear any such results as happened in the disastrous school fire in Cleveland, O., some months ago, when the lives of more than one hundred children were lost through the inadequacy of the fire drill. The inspectors found that in one of the schools there was a little crippled girl in a room, and when the alarm bell rang the first one at her side was a stalwart boy whose special duty it was to look after her. Behind the rest, who marched out in regular order, he came carrying the child in his arms. Arrangements are made for all such cases. When the pupil is so crippled as to be unable to walk, and is too large to be carried in the arms of a brother scholar, several of the larger boys form a basket with their arms for the purpose of carrying him out. It happened on the same day a tiny Jap attended the school for the first time. When the alarm bell rang he was surprised and confused, and the teacher at once took him under her protection and passed out with him after the others had formed into line.

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### THE GERMAN ROUND TABLE CLUB.

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A few months ago there was organized a new club connected with the University of Toronto, which meets monthly in the Faculty Union. It is called the German Round Table, and has for its aim the meeting together in a social way of the professors and teachers of German of the various universities and also university graduates who have studied in Germany or Austria, or are interested particularly in the German language.

At the last meeting, held on the 17th of April, after an enjoyable dinner, Professor Reich, of Trinity University, delivered a magnificent address on the present relations between England and Germany from the standpoint of the German.



Following this there was a discussion on the subject, in which Prof. Fernow, Herr Pastor Müller, Prof. Vandersmissen, Prof. Needler and Herr Cohen of Berlin took part.

Physicians who desire to avail themselves of the opportunity of hearing German spoken as it is in Germany, and to participate in the work of the club, would do well to apply to Prof. Needler, the secretary of "The German Round Table," for membership.

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### WORK OF DR. WILFRED T. GRENFELL.

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When Dr. Wilfred T. Grenfell visited Toronto two years ago our citizens admired the man for his modest, charming personality, and took much interest in his descriptions of the work he had done in Labrador and Newfoundland.

Dr. Grenfell again spent a few days in Toronto in the month of April, and told its citizens something more about his great work. The aim of the association which is supporting Dr. Grenfell is to establish a Seamen's and Fishermen's Institute, where sailors may have the conveniences of public-houses offered to them without going to ordinary saloons. He says : "As it is now, there is no place but a saloon where these men can wash, or sit down and rest when they come ashore."

The Institute will have a plunge bath, gymnasium, bowling, also social hall, library, reading room, temperance bar, and everything that will mean joyous hearts to those neglected people. It will cost about \$100,000, and will be constructed of brick and native stone, with the most modern improvements.

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### INTERNATIONAL MEDICAL CONGRESS.

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We learn from the secretary that the following Canadians are likely to attend the Congress at Budapest, from August 29th to September 4th :—Drs. W. H. B. Aikins, H. A. Bruce, A. H. Garratt, J. M. MacCallum, A. McPhedran, A. Primrose,

R. A. Reeve, and G. Sterling Ryerson, from Toronto. Drs. H. S. Birkett, A. F. Lachapelle, A. A. Marois, A. J. Richer, and F. J. Shepherd, from Montreal. Dr. Choquette, St. Hilaire de Bouville, Quebec. Drs. O. M. Jones, Victoria; S. T. Tunstall, Vancouver, and J. H. King, Cranbrook, B.C. Dr. J. D. Courtenay, Ottawa; Dr. J. H. Duncan, Chatham; Dr. H. Halpenny, Winnipeg; Dr. Ingersoll Olmsted, Hamilton. Among others who may attend but have not yet decided are :— Drs. R. A. Stevenson, A. H. Wright and I. H. Cameron, of Toronto, and J. D. Wilson and Drake, of London. Col.-Surgeon Ryerson will be the official representative of the medical service of the Canadian militia.

It is important that the list of Canadians who have definitely decided to attend the Congress should be completed as soon as possible. Others who decide to go are requested to inform Dr. A. McPhedran, the president, or Dr. W. H. B. Aikins, the secretary of the Canadian National Committee.

Re accommodation in Budapest, the following letter was received :—

Central Booking Office of the Royal Hungarian State Railways.

Budapest, 1 April, 1909.

In conformity with the arrangement made with the presidency of the Sixteenth International Medical Congress, we have been entrusted to find accommodation for the partakers of the above-mentioned congress, and this we perform in advance for the whole duration of the Congress by issuing "accommodation orders."

The period of validity for such accommodation orders is seven days with hotels and eight days with private dwelling houses, and it is to be understood that the day of arrival with the hotels is the 28th of August, but with private dwelling houses the 27th of August.

Should the arrival in Budapest take place after the 27th August (with hotels after the 28th of August), and the departure from Budapest before the 4th of September, no reimbursement will be made for the time the lodgings were not used.

At the same time we have the pleasure to inform you that we are able to dispose of chambers at the following prices :—

## IN HOTELS.

Arrival on the 28th of August—Departure on the 4th of September.

Rent for a stay of 7 days.

*Prices in Kronen.*

Ser. A.—Single-bedded, K. 70-140; double-bedded, K. 84-210; three-bedded, K. 105-245.

Ser. B.—Single-bedded, K. 48-69; double-bedded, K. 64-83; three-bedded, K. 80-104.

Ser. C.—Single-bedded, K. 21-47; double-bedded, K. 36-63; three-bedded, K. 42-79.

## IN PRIVATE DWELLING-HOUSES.

Arrival on the 27th of August—Departure on the 4th of September.

Rent for a stay of 8 days.

Ser. D.—Single-bedded, K. 61-70; double-bedded, K. 76-100; three-bedded, K. 91-115.

Ser. E.—Single-bedded, K. 31-50; double-bedded, K. 46-75; three-bedded, K. 61-90.

Ser. F.—Single-bedded, K. 16-30; double-bedded, K. 30-45; three-bedded, K. 45-60.

Such chambers may be engaged in the following way:—The person who orders lodgings indicates himself in which series and at what price he desires a single-bedded, a double-bedded chamber, or one with three beds, and whether in an hotel or in a private house. It is left to the choice of him who engages the room to fix the price between the maximum and the minimum rent of the respective category. The amount corresponding with the price chosen is to be transmitted to us in advance. In return for it, and in conformity with the order received, we remit the sender an accommodation order for an appropriate lodgings.

To recompense our trouble and expense taken in the accommodation, the presidency of the Congress has stipulated a commission of kronen 8.50 per person; this commission is to be remitted to us at the same time with the rent, and receipt of it will be acknowledged separately, because the accommodation order acknowledges receipt only of the rent we have to pay for the respective lodgings without any deductions.

In case the renter should be prevented from coming and



taking possession of the lodgings—notice of which, however, has to reach us before the 20th of August—the rent paid in advance will be refunded against reception of the “accommodation order,” however, with a deduction of kronen 10 a head; should such notice reach us after the 20th of August, kronen 20 will be deducted per person.

You will oblige us very much if, by taking into account the tables above, you would kindly fix upon the room suitable to your purpose, and kindly remit us the corresponding rent in addition to the commission, whereupon we shall immediately deliver you the necessary “accommodation order.”

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### NOTES.

#### **Memorial to Dr. Bull.**

It is proposed to build and endow an Institute for Surgical Research in memory of the late Dr. Wm. T. Bull, of New York. The institution will be connected with the College of Physicians and Surgeons, Columbia University, where Dr. Bull received his degree in 1872, and where he was for many years professor of surgery. It is further stated that Mrs. Bull will erect a memorial hospital for the treatment of tuberculosis.

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The third annual meeting of the Canadian Hospital Association was held in Toronto during the week ending April 17th, under the presidency of Dr. W. J. Dobie, Weston. Dr. Henry E. Webster, of the Royal Victoria Hospital, Montreal, was elected president, and Dr. J. N. E. Brown secretary for the association for the ensuing year.

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The Regina, Sask., Medical Association was organized April 3rd, and the following are the elected officers:—President, Dr. John M. Shaw; Vice-President, Dr. H. M. Stevens; Secretary, Dr. Harry Morrell; and Treasurer, Dr. A. Rothwell.

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Lord Lister completed his eighty-second year April 5th. *The British Medical Journal* announces that his “collected papers and addresses” will shortly be issued in two volumes by the Clarendon Press. The *Journal* also adds that the profession throughout the world will join in wishing increased length of days and happiness to the man who has been the means of saving more human lives than have been destroyed by all the conquerors that have been the scourge of mankind.

## Personals.

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Dr. Mackenzie King recently paid a visit to Pekin, China.

Dr. Bruce Riordan, after a visit to Texas, returned to Toronto April 12.

Dr. John Caven returned to Toronto after a visit to Florida April 15th.

Dr. Geo. McDonagh returned to Toronto April 15th, after a trip to South America.

Dr. Kenneth Campbell, of Bruce Mines, has been appointed assistant coroner for the District of Algoma.

Dr. S. T. White, of Shelbourne, has been made an associate coroner for the County of Dufferin.

Dr. W. F. Loricks, of Campbellford, is appointed associate coroner for the united Counties of Northumberland and Durham.

Dr. Margaret S. Wallace, Toronto, has been appointed Professor of Medicine in the College of Medicine for Women, North India.

Dr. Grenfell was entertained by the Dean and members of the Medical Faculty at a dinner on the evening of the 10th in the Faculty Union.

Dr. Ernest Jones has established himself at 407 Brunswick Avenue, Toronto, and informs the profession that he confines his practice exclusively to nervous diseases.

Dr. Thos. MacCrae, of Baltimore, visited Toronto April 15th, and proposed the toast to Professor Robert Ramsay Wright at the banquet given on that evening.

Dr. W. J. Kerfoot, of Bishop's Mills, has purchased the practice and property of Dr. G. S. Young, of Prescott. Dr. Young intends to remove to Toronto to practise.

Dr. Frederick Cleland, of New York, visited Toronto March 28th, and remained about one week. He will probably leave New York in September and commence practice in Toronto.

Prof. Ramsay Wright, professor of biology, was entertained at a banquet in the Toronto Club, April 15th, in honor of his having completed his thirty-fifth year as a professor in the University of Toronto.

Dr. Howard, of Boston, and Dr. C. Holmes, of Cincinnati, two hospital experts engaged by the governors of the Toronto General Hospital, visited Toronto April 19th, and consulted with Messrs. Darling & Pearson respecting the plans of the new hospital.

## Obituary.

### **PETER DAVID GOLDSMITH, M.D., L.R.C.P. (Lond.) M.R.C.S. (Eng.)**

Dr. P. D. Goldsmith was a well-known medical practitioner for many years in the Bay of Quinte district. He received his medical education in "Rolph's School" and the degree of M.D. from Victoria University in 1868. After practising for a time in Campbellford, he went to England and engaged in post-graduate work. On his return to Canada he practised for a time in Peterborough, and then moved to Belleville, where he practised for a number of years. He retired from active practice about two years ago and removed to Toronto. Early in April he went to Belleville on a visit, and while there had an attack of faintness and died within a short time. Dr. Perry Goldsmith, of 84 Carlton Street, is his son.

Lieut.-Col. Chas. Clark, formerly member of the Ontario Legislature, and Speaker of the House from 1880-86, and Clerk of the House from 1891 until the time of his retirement, died at Elora, April 6th, aged 83. He was the father of Dr. Chas. K. Clark, the superintendent of Toronto Hospital for the Insane.

Mrs. Robert Hay, mother of Dr. S. M. Hay, Toronto, died at Los Angeles, Cal., April 1st.

Mrs. Hodgetts, wife of Dr. Chas. A. Hodgetts, of Toronto, died March 31st.



## Book Reviews.

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THE EXPLOITS OF A PHYSICIAN DETECTIVE. By Geo. F. Butler, M.D., Professor and head of the Department of Therapeutics, and Professor of Clinical Medicine, Chicago College of Medicine and Surgery. Chicago: Clinic Publishing Co., 1410 E. Ravenswood Park, 1909.

These stories hinge upon a physician's impossible hypnotic power, which always solves the problems presented in an incredibly short time. The book is a cheap imitation of Conan Doyle, with the brains left out.

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NEW AND NON-OFFICIAL REMEDIES, 1909. Containing descriptions of the articles which have been accepted by the Council of Pharmacy and Chemistry of the American Medical Association prior to January 1, 1909. Chicago: Press of the A.M.A., 103 Dearborn Avenue, 1909.

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PROGRESSIVE MEDICINE. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by H. A. Hare, M.D., Professor of Therapeutics and Materia Medica, Jefferson Medical College, Philadelphia. Assisted by H. R. M. Landis, M.D., Visiting Physician to the Tuberculosis Department of Philadelphia Hospital, etc. Vol. 1, March, 1909. Lea & Febiger, Philadelphia and New York, 1909.

The contents of this volume are :—Surgery of the Head, Neck and Thorax, by Chas. H. Frazier; Infectious Diseases, including Acute Rheumatism, Influenza and Croupous Pneumonia, by R. B. Preble; Diseases of Children, by Floyd M. Crandall; Rhinology and Laryngology, by D. Braden Kyle; and Otology, by A. B. Duel.

No other work in the English language makes it so easy for a busy man to keep up to date. He knows the last word to be said on any subject under discussion. Furthermore, the views of many observers are given, but always in the fairest way, and best of all, there is ever that sense of due proportion which is usually so hard to find in works of this nature.

PROCEEDINGS OF THE ROYAL SOCIETY OF MEDICINE. Vol. 2. Nos. 4 and 5. February and March, 1909. Longmans, Green & Co., 39 Paternoster Row, London, New York, Calcutta, Bombay. 7s. 6d. net.

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DISEASES OF THE EYE. By Stephen Mayou, F.R.C.S., late Hunterian Professor, Assistant Surgeon and Pathologist to the Central London Ophthalmic Hospital. With 119 original illustrations and eight colour plates. London : Henry Froude ; Oxford University Press ; Hodder & Stoughton, Warwick Square, E.C. Price \$1.50.

This is a splendidly illustrated, well-written little volume of 380 pages for the use of the student and the general practitioner. One does not know of a better book to give a student as good an idea of diseases of the eye, while the practitioner will find in it all that is necessary for the study of an ordinary case. There is an appendix dealing briefly with the Calmette reaction and giving the visual tests required by the services. There is also a useful list of prescriptions at the end of the book.

## Selections.

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### **Tincture of Strophanthus and Strophanthin.**

As a result of research upon strophanthus and its active principle, Hatcher and Bailey reach the following conclusions in the *Journal of the American Medical Association* of January 2, 1909 :—

The dosage and the proper mode of exhibiting strophanthus and strophanthin require clinical investigation. The action of strophanthin may be elicited promptly in suitable cases by injecting it subcutaneously. Three-tenths to half a milligramme of the crystallized strophanthin in sterile (boiled) salt solution, 1:4000, may be injected deeply into the gluteal muscle once in twenty-four hours without fear of abscess formation or other side actions.

The single adult dose of crystallized strophanthin by the mouth is about 5 milligrammes or less, the daily dose 30 milligrammes or less. The single adult dose of the official strophanthin by the mouth is probably about 10 milligrammes, and the daily adult dose by the mouth is probably about 60 milligrammes, but the latter dose should not be used until we have further clinical experience concerning the various factors governing its absorption.

The action of tincture of strophanthus by the mouth and the factors modifying its absorption require further clinical study. Uniformity of action can only be secured by uniform absorption, and this is influenced by the menstruum in which the drug is given and the condition of the alimentary canal at the time of administration.

It is quite possible that diet may influence the absorption of strophanthin in the human alimentary canal, so that man may at one time resemble the rodent and at another time the carnivorous animals (cat and dog) in susceptibility to strophanthin.—*Therapeutic Gazette*.

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### **Bacterio-Therapy.**

When Wright first enunciated his now obsolescent theory of opsonins it was the expressed hope in certain quarters that a final solution of the vexed problem of specific therapy had been reached. The theory is an attractive one, and on first sight appears to rest on a demonstrable physiological foundation. The existence of substances in the body whose function is modifica-



tion of an invading agent so as to render it susceptible to phagocytosis is an assumption which in the present state of our knowledge is wholly unwarranted. As an interpretation of observed phenomena it is a failure. Further immunization with the causative organism in an individual already afflicted with an infective disease process does not cause an increase in hypothetical opsonins, but exerts its influence altogether upon the disease foci. This is in obedience to a biologic law, formulated by the writer after extended observation, that injection of extraneous materials into an organism having a localized area of disequilibrium occasions reaction in the diseased and not in the normal areas.

Although bacterio-therapy as a curative procedure is a part of the practitioner's armamentarium, the method of governing the reactions by estimation of the opsonic indices is slowly losing ground. From the first, physicians as a body did not accord it a very enthusiastic reception. The method is complex and technical to a degree that wearies the man in general work. As a laboratory method no doubt it has a place, but for routine office work it is out of the question. A small number of enthusiasts still advocate opsonic estimations as a routine measure, but these, too, will eventually return to the more dependable clinical evidences of reaction as guide to the administration of bacterial vaccines.—H.S. in *The Lancet-Clinic*.

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### Incontinence of Urine in Children.

Dr. A. L. Mentzikovsky, of St. Petersburg, who has made a special study of the Incontinence of Urine in Children, has formed the opinion that the pathology of this morbid condition consists chiefly in the degree of sensitiveness, and of vascularity of the mucous membrane of the bladder and urethral canal. He distinguishes two types. In the one the mucous membrane of the urinary passages is extremely sensitive and hyperæmic. The least touch excites acute pain with intense reaction, so that it is impossible to introduce a catheter without a general anæsthetic. The second type is, on the contrary, characterized by diminished sensibility, and the interior of the bladder and urethra can be explored without causing any reaction on the part of the child. In the first case the smallest accumulation of urine in the bladder occasions a reflex contraction of the muscles and causes a continual incontinence of urine. In the second case the sensibility of the mucous membrane of the bladder is so diminished that the reflex contraction of the sphincter vesicæ

is not called forth except by special volitional control, and nocturnal incontinence results. This distinction of the two types enables the appropriate treatment to be applied. In the first type of cases the author resorts to daily local applications of cocaine solution with adrenalin, first to the urethral passage and then to the bladder itself, combined with the internal administration of bromide. In this way the sensitiveness is gradually diminished and the bladder becomes accustomed to retain the urine. For the second type of case the author advocates injections of 1 to 3 per cent. silver nitrate solution twice a week, in order to increase the vascularity and sensitiveness of the parts. He thinks that the mechanical irritation by instrumentation for the introduction of the solution contributes largely to the cure.—*The Hospital*.

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#### **Ethylmorphine Hydriodide, a new Dionin Preparation.**

Since Wolffberg published his first paper on the lymphagogue action of dionin, ten years ago, B. Sylla has used the drug freely in affection of the anterior and posterior portion of the bulb. As a rule, the powder or the 10 per cent. solution is preferred. The two disadvantages are that the application is often painful and that the patients soon become accustomed to the drug. If, however, iodoform powder is used with or after the dionin, better results will be obtained and opacities will clear up in a remarkably short time. This is believed to be due to the iodine which is gradually given off from the iodoform. As dionin is chemically the hydrochloride of ethylmorphine, it was thought that if the corresponding hydriodide is employed there will be less pain and more rapid action. The new salt, ethylmorphine hydriodide, is less soluble than the hydrochloride, hence is preferably applied as powder. A pronounced swelling will rapidly set in with partial anesthesia, just as with dionin itself. When patients had been treated for a long time with dionin and had become accustomed to the drug, the hydriodide still gave good results. It may, therefore, be advisable to alternate the two in suitable cases. The scars resulting from the hydriodide are generally smaller and more delicate. Particularly good results were obtained in tears of the cornea with injury to the lens and in chronic trachoma with pannus of the cornea.—*Woch. f. Therap. u. Hyg. des Auges*.

## Miscellaneous.

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### Treatment of Rheumatoid Arthritis.

The following is an epitome of an article by C. F. Bailey, of the Sussex County Hospital, appearing in the *British Medical Journal* of January 2nd, 1909. The author accepts the theory that the disease is primarily due to micro-organisms, or their toxins, but does not lose sight of the fact that certain local conditions have their place in the etiology, more especially as regards predisposition to, and aggravation of, the inflammatory lesion.

Part of the want of success we obtain from the administration of bactericidal drugs, is due to the minute quantities which necessarily circulate in the normally slow nutrient streams which supply the joint tissues. It is with the view of increasing this flow that Bailey recommends the following course of treatment. He condemns the use of the ordinary methods of applying heat locally, on account of the "moist air heat," which has been almost unavoidable up to the present, and the difficulties found in its regulation; the ordinary low candle-power lamps in use give out rays almost entirely yellow and yellow-orange, while "high candle-power" lamps supply rays from ultra-red to ultra-violet, and it is from this type, apparently, that the most satisfactory results are obtained. He recommends a single large lamp, with a thick carbon filament, having a luminosity of 500 candles, mounted in a reflecting funnel. With this a dry heat of 400 deg. F. can be obtained, endured by the patient, and its intensity easily regulated. The result consists in dilatation of the blood and lymphatic vessels, lowering of local arterial pressure, and increase in local metabolism; a rapid alleviation of pain also follows. The light is usually used for about twenty minutes, when treatment by "ionization" follows.

It is an accepted fact that when a constant current passes through living tissue from electrodes soaked in two per cent. solution of any salt, the basic radical travels into the tissue from the positive towards the negative electrode, whilst the acid radical travels in the opposite direction. It is found that the quantity of nascent radical travelling with a two milli-ampere per square centimeter current is quite appreciable; if the joint be already rendered hyperemic by local heat, the



amount entering will be considerably augmented, and the maximum effect of the drug obtained; 30 to 70 milliamperes are usually required to obtain the desired result. This cataphoresis is usually used immediately following the heat treatment; for instance, Bailey suggests that in applying this method to the wrists, both arms are immersed in two per cent. baths of lithium iodide if large joints are involved, four thicknesses of lint soaked in the desired solution are applied to the affected joint, and an "indifferent" pad of the same material, saturated with, say, sodium or ammonium chloride solution, is applied to another region of the body.

In addition, one must never omit general constitutional measures, and the usual administration of drugs *per oram* in the course of treatment.

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**The Use of Antiseptics in Gynecology, with Special Reference to Uterovaginal Catarrh.** By M. LUTHER SPRIGGS, M.D., Joplin, Mo.

During recent years much has been said and written concerning the value of antiseptics, and the wonderful changes wrought by their use have been little short of marvelous.

A large percentage of the pelvic diseases occurring in the female are of bacterial origin, and the recognition of this fact and the application of the modern principles of alkaline antiseptics are responsible for the relief of many cases which were formerly a source of great anxiety to both patient and physician because of their intractability.

Another important field of usefulness for alkaline antiseptics which should not be overlooked in gynecologic practice, and which is second only in importance to the relief of already existing pathologic conditions, is in the prevention of disease, or, when such disease already exists, in limiting its action to the minimum. As an example many cases of uterovaginal catarrh, simple enough in themselves, will, if neglected or improperly treated, terminate in complications of a very serious nature.

There is not the slightest doubt but that many of the inflammatory diseases to which women are liable may be prevented by absolute cleanliness and the use more or less regularly of a suitable antiseptic.

We have at our disposal numerous agents possessing decided antiseptic properties, but, unfortunately, the usefulness of many of these is limited by other properties of an objectionable nature.

# The Canadian Practitioner and Review.

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No. 6

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## Original Communications.

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### OUR PROFESSION AND THE LAITY IN PREVENTIVE MEDICINE.\*

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BY DR. H. J. HAMILTON, TORONTO.

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I have a deep sense of appreciation of the honor you have done me in electing me to the Presidency of the foremost Medical Association in Canada. I am conscious of the fact that the profession in Ontario has no greater honor to confer upon one of its members. The status of this Association, however, is such that the honor carries with it grave responsibilities which I have endeavored to discharge, as well as I am able, to your satisfaction and in the interests of the Association. If I have failed in this I crave your indulgence.

On reviewing our history from the date of our organization, in 1881, I entered upon the duties of office with a great deal of temerity. The list of past presidents, the part they have had in the development of the Association since its inception, and the high point of excellence which it has attained, not only inspired me with awe, but stimulated and encouraged me to try to make this meeting an unqualified success. I cannot speak too highly of the support which has been rendered by the committees and the membership of the Association. It is with pardonable pride that I present to you the results of the combined labor of all, viz., the best programme ever provided for our annual meeting. In passing, I would thank the Secretary for his untiring efforts during the past year.

In addressing the audience before me, it is superfluous to

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\* President's address at meeting of Ontario Medical Association, Toronto, June 1, 1909.

refer to the benefits derived by the profession from our meetings. Those who attend know all about this. For those who never come to such gatherings, I would quote from Hamilton Mabie:

"The development of one's personality cannot be accomplished in isolation or solitude; the process involves close and enduring association with one's fellows. If work were merely a matter of mechanical skill, each worker might have his cell and perform his task, as in a prison. But work involves the entire personality and the personality finds its complete unfolding, not in detachment, but in association."

Surely the education and development of a member of our profession should not cease when he graduates. Both constitute a life-long process and true success in the individual will depend upon the consideration which he gives these essentials. I use the words education and development in their widest meaning. Professional education alone to the exclusion of that development which conduces to make a man broad, to give him a mature knowledge of human nature, and a soul full of sympathy for his patients and the general public will not place us where every member of our profession should stand.

In meetings such as this much has been said about our conduct towards each other, and it is sometimes not what it should be. Conscientious work, combined with abnegation of self in the interests of suffering mankind, would ultimately result in such a general application of the Golden Rule, that we would credit each other with such honesty of purpose, that we would be less inclined to misunderstand each other. Conditions in our profession have so materially improved during the life of this Association that only a passing reference may be made to this subject. To quote from our code: "Diversity of opinion and opposition of interest in the medical, may, as in other professions, sometimes occasion controversy and even contention. Whenever such cases unfortunately occur, and cannot be immediately terminated, they should be referred to the arbitration of a sufficient number of physicians or a court-medical." My interpretation of that article is that if Dr. A. is of the opinion that Dr. B. has used him unprofessionally, Dr. A. should endeavor to have that misunderstanding "immediately terminated" by conferring with Dr. B. and only refer the matter to the court-medical after such effort to arrive at a proper understanding has proven futile. Furthermore, if Dr. A., smarting from a supposed "injustice" at the hands of Dr. B., resorts to the court-medical without trying by conference



with Dr. B. to amicably settle the difference of opinion, he, himself, is the aggressor.

Although conditions in our profession are much better than they were at one time, there is still room for improvement. Let us become better acquainted with each other, meet each other more frequently, reach a higher level and avoid making careless remarks when speaking of each other; remember the good and ignore the evil, if we know or suspect that such exists. Regular attendance upon this and similar associations would do much to keep down petty jealousy and strife. By attaining the ideal in this and combining our energies in work for the benefit of humanity, even much more would be accomplished than has been up to the present time. Let us forget all disturbing elements in our profession and keep before us the motto of this Association: "Concordia Crescimus."

What are we doing for the public?

The following quotation, from MacFie's "Romance of Medicine," gives some examples of what modern science has spared the public from:

To cure dropsy. "Take a good quantity of black snails, stamp them well with bay salt, and lay to the hollow of the feet, putting fresh twice a day."

To cure ill eyes. "Take two or three lice, and put them alive into the eye that is grieved, then shut it close. The lice will certainly suck the web out and afterwards without any damage to the patient, come out."

For dysentery. "Take the bone of the thigh of a hanged man (perhaps another will serve, but this was made use of). Calcine it to whiteness. Dose: a dose of white powder in some red cordial."

Earthworms, woodlice, human skull, and other loathesome things were favorite prescriptions of the time.

The same writer tells us that, according to Sir Thomas Browne's discourse upon this subject, Haly confirmed the fact that prepared mummy was frequently used by the ancients as a medicine. We are told that it was prescribed for epileptics and gouty subjects. Francis the First, of France, always carried mummies with him as a panacea against all disorders.

"But the common opinion of the virtues of mummy, bred great consumption thereof, and princes and great men contended for this strange panacea, wherein Jews dealt largely, manufacturing mummies from dead carcasses and giving them the names of kings, while species were compounded from crosses and gibbet-leavings. There wanted not a set of Arabians who

counterfeited mummies so accurately that it needed great skill to distinguish the false from the true. Queasy stomachs would hardly fancy the doubtful potion wherein one might so easily swallow a cloud for his Juno and defraud the fowls of the air while in conceit enjoying the conserves of Canopus."

We, as a profession, are making honest efforts to help the public. Progress in medicine has for its aim not only the cure, but the prevention of disease. Reforms in this latter particular are not always met kindly by the laity, nor in fact accepted without proof by the profession. It is at least safe to be cautious, but let us hope that never again will any movement in preventive medicine meet with such bitter opposition from the profession as did vaccination when introduced by Jenner.

Vaccination, providing immunity against smallpox, is so firmly believed in, that at this late date one should apologize for referring to it. The subject is no longer one for debate. Life is too short to enter into controversy upon that which is just as true as the fact that 2 and 2 make 4. Japan, not more than 30 years of age in medical progress, recognizes the necessity of adopting compulsory vaccination with the result that smallpox, once a scourge, has become easily manageable in that country. I refer to Japan as an example of a nation where compulsory vaccination is insisted upon when a child enters school. Medical inspection of schools is also carried out. The same may be said of Honolulu and other places which we have believed to be not as far advanced in medical science as we in Canada are. At the present time compulsory vaccination is a dead letter in the public schools of Toronto.

Our profession and this Association have frequently, with no uncertain sound, voiced their opinion in reference to this state of affairs. The public, for whom we are working, are either indifferent as to ultimate results or ignorant upon the subject. The awakening will be extremely rude when it comes, as it certainly will come.

Pasteur, in more recent times, conferred a boon upon mankind by providing a serum which rendered one bitten by a rabid dog immune to hydrophobia.

Mark the difference in the reception given by the public to his discovery and that accorded to Jenner's theory of vaccination. This may, in part, be due to the fact that vaccination against smallpox was given to the world when the laity, and even our own profession were less able to grasp the meaning of it than at the present time. It may also in part be due to the fact that Pasteur's serum is used only when there has been

exposure to rabies. The public can see then the wisdom of protecting themselves against hydrophobia, the disease most terrible to the popular imagination. They know that the bite of a rabid dog is fully expected to result in hydrophobia, and they will resort to the remedy at once and without question. I doubt very much whether there is a solitary member of our Board of Education who would decline to undergo treatment immediately, if bitten by a mad dog. No, not even for the sake of appealing to popular prejudice, if such existed, would he do such a foolish thing. It is safe to say that there is no prejudice against the use of Pasteur's serum. Must men be infected with a disease which is necessarily and rapidly fatal before they will consent to use the remedy? Rabies—horrible and terrorizing to contemplate, but comparatively rare in occurrence—fatal. Yes, the argument is convincing—Pasteur's serum prevents—we will be advised by our physician, and even consider him a fool, if he does not send us to New York at once.

Smallpox—vile, loathesome, extremely contagious, large numbers attacked when there has been no immunity previously provided, wiping out the population of large cities by thousands but recovery possible in a proportion of cases—no, we may not be infected, and if we are infected we may recover. We will not be vaccinated, nor have our children vaccinated, nor will we require children attending school to be vaccinated. It would lose some votes for us on Jan. 1st, we are afraid. Thus in this disease the health of the public is allowed to be a political football. Nothing short of a frightful epidemic of smallpox which decimates our population will prove to these men the efficacy and wisdom of vaccination.

One hundred years ago, or a little more, one anti-vaccinationist asserted, "Smallpox is a visitation from God, but the cowpox is produced by presumptuous man; the former was what heaven ordained, the latter is perhaps a daring violation of our holy religion." Of the two v's in that quotation, all I have to say is, neglect the violation, and you will sooner or later get the visitation.

Vallery-Radot says, "One day Pasteur, having wished to collect a little saliva from the jaws of a rabid dog, so as to obtain it directly, two of Bourrel's assistants undertook to drag a mad bull-dog, foaming at the mouth, from its cage. They seized it by means of a lasso and stretched it on a table. These two men, thus associated with Pasteur in the same danger, with the same calm heroism, held the struggling ferocious animal down with their powerful hands, whilst the scientist drew, by



means of a glass tube held between his lips, a few drops of the deadly saliva."

This was heroism to be sure, but what of Jenner, who inoculated his own child of 16 months with swinepox? What of the heroism of Pasteur's second patient, a boy of 14, who was bitten while protecting his comrades? "Armed only with a whip he confronted the infuriated animal who flew at him and seized his left hand. After a tremendous struggle, during which his hand was badly bitten, the boy succeeded in overpowering the dog, bound its jaws together with the whip, battered in its head with his wooden sabot, and finally dragged it to a stream and held its head under water till it was undoubtedly dead." This boy recovered as did the first. Our profession has given men who in these two diseases have accomplished untold good for the public, but the Jenners and Pasteurs of to-day are working just as faithfully for mankind as ever they did.

In tuberculosis the laity are now the faithful allies of the profession, and while much has been accomplished in this disease, it remains for the powers that be to make more universal use of the educational campaign which has been going on now for some years and supplement the efforts of the profession and public. They are doing this as rapidly as seems to them wise. It is expected that the municipalities will take an active hand in this.

I would enlist for our profession the unbounded confidence and sympathy of the laity in our efforts to secure for all pure air, pure food and pure water. During the immediate past we have been making rapid advance in that respect. The local Legislature is co-operating with our profession with commendable zeal in reference to the milk supply of the Province. As a result of Mr. W. K. McNaught's most excellent resolution passed by the House, a Provincial Milk Commission has been appointed. This subject has occupied Mr. McNaught's attention for some time and has had the hearty support of the Minister of Agriculture and others in the Cabinet. With such an able Commission, and equally able and enthusiastic Department, we may be satisfied that before this Association meets again, much will be accomplished.

During the past year the Milk Commission of the Canadian Medical Association has been doing good work. Locally the Milk Commission of the Academy of Medicine has been successful in doing more than we could have reasonably expected from a body of men busy with the routine of medical practice.

These men have given of their time and energy most generously, with the result that it is now possible in the City of Toronto to purchase certified milk which must reach the standard of purity required by that Commission.

From the daily press we learn that Mr. John Ross Robertson, that good old protector of sick and helpless children, has recently been most active in securing for Toronto the establishment of infant milk stations which will provide pasteurized milk for 1,000 children daily during the coming summer. With a well selected delegation of physicians, Mr. Robertson recently visited New York and consulted Mr. Nathan Strauss at his laboratory, with the result that a pasteurizing plant has been ordered and will soon be installed by Dr. Arthur Randolph Green, of New York. Recently the Medical Society of the City of Hamilton appointed a milk commission to look after the supply there. These are examples of what is being done in other places throughout the Province, and we point with pride to the fact that our own profession is leading in the movement.

In reference to the water supply of the City of Toronto, last January, the electorate passed a by-law authorizing the expenditure of a large sum of money in a system of disposal of sewage by septic tanks and for a filtration plant for our water supply. At the time of writing some members of the Council are opposing the scheme, but we can confidently hope that this opposition and delay results from some misunderstanding which will soon be cleared up. When the people know and say what they want, they will certainly get it. They have said it, and the medical profession have helped them to learn the necessity of having pure drinking water.

The public were never so well informed in sanitary matters as they are to-day, and were never so eager to learn more from us in these things. The time is coming when they will not ask what it costs to secure pure food and pure water, but they will ask how to get it at any cost.

Life insurance companies should be foremost in the campaign against preventable diseases. Prof. Irving Fisher, of Yale University, said: "It is sound business for the life insurance companies to work for the prevention of disease, just as it is sound business for the fire insurance companies to work for the prevention of fires. By this method the insurance companies will increase the duration of life of their policy-holders and thus be financial gainers." Can they be induced to help in the fight against tuberculosis and typhoid fever?

To Sir A. E. Wright belongs the credit of applying vaccination as a means of preventing typhoid fever.

Statistics available in 1907 were based upon inoculation on British troops in India and South Africa. Sir A. E. Wright quotes figures as follows: Among 19,069 inoculated soldiers, there were 226 cases of typhoid fever—a proportion of 1 in 84.4; among 150,231 uninoculated soldiers there were 3,739 cases, that is, 1 in 40 took the disease. In the inoculated the mortality was 17 per cent., in the uninoculated the death-rate was 25 per cent. The immunity seemed to persist for about two years. Chantemesse reports a death-rate of 17 per cent. in 5,621 cases of typhoid treated in Paris hospitals from 1901 to 1907 without inoculation, and since that time 1,000 cases treated in his wards with cold baths and anti-typhoid serum with a death-rate of 4.3 per cent. Not one fatal result occurred when the serum had been used within the first seven days of the disease. Convalescence was very rapid in patients treated early. This practice has also been adopted in the German army with good results.

Up to the present the evidence would go to prove that the use of anti-typhoid serum is advisable among soldiers and other large bodies of men who are surrounded by unknown or suspicious sanitary conditions. An effort has been made in this address to refer to some things our professions are trying to accomplish for the public in preventive medicine. If to this aim on our part we can add the confidence and co-operation of the public the results will be more satisfactory in the future than they have been in the past. To this combination of profession and laity we can safely add the support of the Legislature, a body elected by the people, and willing to grant what the majority of the electorate desire of them.

The confidence and co-operation of the public can only be secured when they understand the necessity of the work. The surest way of educating the public is to start with the rising generation. The Legislature of this Province now empowers school trustees to provide and pay for medical inspection of schools. To this add the teaching of hygiene in the schools.

The primary object of medical inspection of schools is to prevent children from contracting or giving to others communicable diseases. In the second place the object is to detect mental and physical defects, that they may be properly cared for, and not allowed to interfere with the child's progress in school.

This, followed by teaching in public health as far as their



age and education will permit, would do much to relieve a great deal of distress and diminish our death-rate. If a child could tell his parents what could be done for the prevention of tuberculosis by proper disposal of sputum, and the adoption of proper hygienic measures, the time and money expended in teaching him these things would be well spent. The same would be true if every child could explain to his parents why it was better to boil the drinking water and why certified milk is cheaper in the end than milk of doubtful quality. If the children were able to demonstrate to their parents that tuberculosis and typhoid fever are preventable diseases, much more would be done towards educating the masses. The homes must be reached, and that can be done more readily if we have a good system of medical inspection of schools and instruction in hygiene.

Sir Victor Horsley, in addressing the British Medical Association, refers to medical inspection of school children as one of the primary questions of the day, and says: "Here is a department of national work for which alone the medical profession can be and is responsible."

Our Department of Agriculture each year spends a great deal of money on animal and plant life, because they, as representatives of the people, carry out the wishes of the people. If the local Government do not spend as much money in caring for the health of the children of this province as they might, it is because the people are not ready to permit it. In the matter of medical inspection of school children, the Government has given school trustees the power to spend money for this purpose—it is now for the people to allow it to be done. It is to be hoped that the Department of Education will at an early date devise some workable scheme by which medical inspection will be carried on in a most effective manner.

Locally, through the Academy of Medicine of Toronto, our profession has been endeavoring to accomplish something in the matter. There has just been published the report of a Committee of the Academy upon Medical Inspection of Schools. The Secretary, Dr. Helen MacMurchy, has been most untiring in her efforts to secure information regarding what has been accomplished by medical inspection in the United States and Europe. I would recommend the careful perusal and consideration of this report. It is our duty to not only help in this work, but to direct it. It certainly opens up a very wide field in the realm of preventive medicine.

## SOME COMPLICATIONS OF THE PUERPERIUM, WITH A REPORT OF A CASE.\*

BY DR. J. R. STANLEY.

*Case*—Mrs. N., aged about 28. Housewife, formerly a seamstress. Well developed and well nourished. Previous health good. Habits active. Father asthmatic, since dead. One sister with a large family and a history of albuminuria and toxemia with every pregnancy. Patient became pregnant for the first time in the autumn of 1906, and expected to be confined about July 15th last. Her health during the period of her pregnancy was on the whole good. She had, however, an occasional headache, and some edema of the feet, hands, and face. Her appetite remained excellent, and she was quite able to do her own housework. On June 28th, she travelled 100 miles coming to her mother's home. Four days later, on July 2nd, her present illness came on.

She was in her usual good health during the day; took a lunch about 4 p.m., and at 9.30 p.m. was seized with a violent pain in the epigastrium. I saw her, for the first time, about an hour later. She was in great agony, tossing about, both in and out of bed, and perspiring freely. She vomited a dark fluid, but almost no food. Her temperature was normal, and pulse practically normal. Morph sulph. gr.  $\frac{1}{4}$ , hypodermically, gave some relief. As the severity of the pain diminished the rhythmic labor pains were detected. On examination the head was found entering the pelvis, the cervical canal obliterated, but the os undilated. Towards morning the pains subsided, and the patient rested well during the forenoon. In the afternoon she had headache, increasing in severity, and by evening she was very restless, nervous, and had a violent headache. She vomited frequently, had epistaxis once, and some oozing from the gums. The urine was scant and smoky. Pulse 90, very high tension. Temperature 99-2-5. A hot pack gave some relief and labor pains returned. A fairly vigorous child was born about 2.15 a.m. The os and perineum were slow in yielding, otherwise labor was uneventful. There was rather less hemorrhage than is usual.

A few hours later the patient again became nervous and restless, and there was some twitching and vomiting. A catheter

\* Read at meeting of Ontario Medical Association, Hamilton, May 28th, 1908.

was passed about eight hours after delivery but no urine obtained. The pulse jumped to 130, and became somewhat intermittent, and the temperature rose to 100 4-5. Considerable complaint was made of soreness in the epigastric and right hypochondriac regions. Free purgation and hot packs improved the condition somewhat, and about 3.30 p.m. half an ounce of bloody urine was obtained, and about 10 p.m. she voided urine with bowel movement.

The following day the patient's general condition was slightly improved, but the abdomen became distended with gas, and a moderate degree of jaundice developed. The kidneys were acting much more freely, but the urine and feces were passed involuntarily.

For the next couple of days the patient's condition showed improvement, but the tympanitis was extreme, and the right hypochondrium very painful on the slightest movement, forcing the patient to maintain the dorsal posture. This tenderness persisted throughout the whole illness.

About the beginning of the second week she had a pronounced chill, lasting 10 or 15 minutes, with no subsequent rise of temperature, and also began to bleed freely. This persisted for about a week. The patient, bleeding from the nose, gums, and vagina, became prostrated and exsanguinated to a remarkable degree. The cessation of the hemorrhages was followed by an attack of cystitis with strangury and pyuria.

During the latter part of the second week, the patient complained of an aching in her shoulders, and soreness and stiffness in the joints of the extremities, and this continued throughout convalescence, and is still troublesome.

Convalescence was slow but without further complication.

#### HISTORY OF SPECIAL PARTS.

*Nervous System*—Some headache during pregnancy, but not very frequent. Very severe headache on the afternoon of the second day; infrequent afterwards. Restlessness and sleeplessness, with some twitching on the morning following delivery; relieved by hot packs and free purgation. Mental irritability marked the greater part of illness. Exceedingly irritable in the second and third weeks. A mild type of delirium present for a short time in the prostration of the hemorrhages.

Slight rise of temperature, 99 2-5 to 100 4-5, for the first two days, afterwards usually subnormal until the onset of the cystitis, when it reached 102 2-5, and then gradually subsided.

*Blood and Circulatory System*—Pulse of very high tension



on the second day; became rapid, weak, and intermittent on the third day. After use of hot packs and free purgation it improved in quality. Again after hemorrhages recommenced it was of a wretchedly bad quality. Hemic murmurs in the cardiac area were very pronounced in the second and third weeks.

Hematuria, hematemesis, with bleeding from the gums, were present on the first and second days and reappeared in the eighth day, and for a week the patient bled constantly from the nostrils, gums, vagina, and urinary passages. No subcutaneous hemorrhages were observed.

On the day of attack she thinks she passed about the usual quantity of urine. On the day following a smaller quantity of smoky urine. Then for 14 or 15 hours no urine was passed and none could be obtained by catheter. When the kidneys began to secrete again the urine was loaded with blood. This disappeared in a few days, but reappeared in the second week, when considerable blood was lost per urethra. No casts were found after the first few days of illness, and the albumin was never abundant. The quantity of urine soon reached normal.

About the twelfth day the patient began to complain of pain on micturition. This developed into a well-marked attack of cystitis, with an abundance of pus. This slowly subsided and the pus gradually lessened and disappeared.

*Digestive System*—Nausea and vomiting frequent early in the illness, and occasional throughout; the digestive powers being very easily exceeded. During the first few days of illness the patient had a most inordinate craving for food. On the third day the abdominal distension began. This soon reached an extreme degree, displacing the liver and heart upwards, the apex beat being well above the nipple. This gas was chiefly in the small bowel, and it persisted in spite of free purgation and other treatment for about ten days and then gradually subsided.

The liver, which was displaced upwards by the gas, gave a slightly enlarged area of superficial dullness, and the tenderness anteriorly over the stomach and liver was present from the first, and persisted all through the illness. The pain was aggravated by any change from the dorsal position. Strapping the side gave a little relief. About the ninth day, on auscultation below the right nipple, friction sounds were heard. These I believed to be diaphragmatic in origin. At this time also the patient would cry out with pain immediately after swallowing, apparently as the fluid was passing the diaphragm. The erupting of gas was equally painful, the passage of the bolus,

or the gas, producing a spasmodic contraction of the diaphragm. The patient still complains of her "weak side," and is unable to lie on her left side, owing to a distressing feeling, as though her right side were falling in.

*The Articulations*.—The trouble in the articulations was first noticed about the close of the second week, when the patient complained of the aching of her shoulders, and also that she could not use her hands well. She had not much pain except on active exercise. When convalescent she could not hold her baby owing to the pain which it caused in her arms. She could walk with difficulty, but could not go up or down stairs. There was no redness or swelling, and very little tenderness or pressure, and less on passive movement than on active. This disability she still has in quite a large measure.

*Note on Treatment*.—Hot packs inducing free perspiration and magnesium sulphate, in small repeated doses, inducing free purgation, brought quick response in relieving the toxemic condition.

Milk and albumin water gave most satisfaction as a diet.

For the hemorrhages calcium chloride was tried, but it was soon rejected by the stomach. It was then given per rectum, but when it was required most was almost invariably expelled. Lime water added to milk or to peptonized milk was given nearly all through her illness.

A. E. Wright and W. E. Paramore, in *The Lancet*, state that the coagulability of the blood is increased by the ingestion of milk, as in this way calcium and magnesium salts are taken into the system. They also claim that where the salts of calcium cannot be taken by the mouth they may be taken hypodermically in solutions of 1 in 20. In this case I persisted in giving lime water with the milk, in the hope that some might be absorbed.

Strychnine and digitalin hypodermically or by the mouth were given freely.

Aromatics and antifermentatives, to relieve gaseous distension, were apparently useless, and were not well borne by the stomach.

As purgatives, calomel and magnesium sulphate, in small repeated doses gave best results.

Salines were given by the bowel, but were not well retained, even when given in small quantities.

*Discussion*.—In the discussion of this case a few points might be noted:

The hemorrhagic tendency in pregnancy, or in the puerperium, is rather a rare complication, but may arise during pregnancy or after delivery, and is generally regarded as of very grave prognosis. The infrequency of the complication may be, in part, due to the fact that there appears to be an increased amount of fibrin in the blood during pregnancy, and this probably acts as an preventative.

In this case the hyperarterial tension was possibly a factor in the hemorrhages at the onset of the illness, but the toxic condition arising from the pregnancy was probably largely responsible. The recurrence of the hemorrhages a few days later was doubtless aided by the absorption of bile toxins. Hemorrhages in chronic jaundice are of frequent occurrence, but in acute attacks with light jaundice it is exceptional. J. W. Coe, in the *J. A. M. A.*, claims that constant features of the hemorrhagic diathesis are reduction in the number of blood plates, and an absence of leucocytosis.

Complete suppression of the urine is rather a rare complication, but it may occur in puerperal cases.

1. It may occur in acute nephritis, just as in acute nephritis apart from pregnancy.

2. It may occur apart from nephritis, and apart from eclampsia, as in a fatal case of Jardine's, coming on the sixth day, after the passage of a catheter. A few other cases have been reported.

3. It may occur in eclampsia; nearly always in fatal cases. Jardine reports some cases in which post mortem examinations showed dilated kidney tubules, but no inflammation.

This naturally brings up the question of the relation of the "kidney of pregnancy" to true nephritis. Jardine lays down a clear division between them and reports a series of post mortems in fatal cases of eclampsia, where there was no true nephritis. He attributes to liver derangement the chief source of trouble. He also claims the presence of blood in the urine, even in large quantities, does not mean nephritis, but may be present in eclampsia without nephritis, when it will quickly disappear after delivery. Grandin, of New York, speaks of cases of eclampsia with neither albumin nor casts.

There appears to have been, in this case, a perihepatitis, probably of a more or less local character, such as occasionally occurs secondary to gall stones or cholecystitis. This probably was one of the factors in producing the tympanitis, and the diaphragmatic irritation around the esophagus. It might also be well to remember that some claim that biliary colic does



not necessarily mean the presence of gallstones. Sheldon, in the *N. Y. M. J.*, reports 37 cases of biliary colic and no stones at operation.

The association of gallstones and pregnancy is rather peculiar. Perhaps all authorities agree in placing pregnancy among the predisposing causes of gallstones, and yet gallstone colic is rare in pregnancy. Jardine says he has never met a case. It is also remarkable that a condition so often counted as favorable to gall-bladder troubles should so seldom be complicated by cholecystitis. Vineberg, in the *Med. Record*, says that in ten years he has seen but four cases complicating the puerperium.

Jaundice is occasionally present in eclampsia without gallstone colic or cholecystitis. I have seen it in cases of comparatively mild toxemia, but with considerable vomiting.

The usual complication of the articulations in the hemorrhagic diathesis is hemorrhage into the joints, and a consequent synovitis, but in this case, beyond some indefinite pains, principally in the shoulders, and pain on movement, few symptoms were present.

## THE USE OF ADRENALIN CHLORIDE IN SPECIAL WORK ON THE EYE, EAR AND THROAT.\*

BY MURRAY MCFARLANE, M.D., TORONTO.

Adrenalin— $C_{12}H_{17}NO_2$ —is a chemical substance crystallizing in various shapes, isolated in 1901 by Takamine and Aldrich from the suprarenal body of the ox, grayish-white in color, slightly bitter, and leaving a numb sensation of the tongue. It is very soluble in hot, less so in cold water, turning pink on exposure to the air, this change not affecting its power in any way. It is put up by Parke, Davis & Co., in a 1-1000 solution of the chloride with the addition of .05 per cent. of chlore-tone as a preservative.

Shortly after a solution of 1-1000 adrenalin chloride is dropped into the conjunctival sac the membrane becomes white and the tissues at the inner canthus shrink; a few more instillations and the skin begins to whiten; sometimes the pallor extends to cheek, nose and eye-brow. Cocaine may be used with it, reinforcing its action and rendering it very valuable for operative work, as we all know.

Prior to the isolation of adrenalin, much work had been done by Brown, Sequard, Oliver, Schafer, Bates, Cohen, Floersheim, and others, who used solutions of the suprarenal gland. The great difficulty was owing to the rapid deterioration of the animal extract and the difficulty of preparation of the solutions, as the writer can testify.

Many suprarenal gland extracts are almost identical chemically with adrenalin, also physiologically and chemically. A few of the recent ones are hemisene, renaglandine, adnephrene, paranephren and renostyptin—names applied by the different firms of manufacturing chemists supplying them. In diseases of the eye, nose and throat the solution can be used without fear, although one observer considered that a case of glaucoma was caused by the use of adrenalin. Sidney Stephenson, on the other hand, uses it in glaucoma. In the nose for cases where the submucous section is being done, or where it is desirable of gaining access to the accessory sinuses, adrenalin chloride solution is of very great value by its power of rendering the parts bloodless and causing retraction of swollen tissues.

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\* Read before Academy of Medicine and Surgery, April meeting.

The notes following were from observations made some eight years ago when the writer was asked by Parke, Davis & Co. to report upon the new preparation of the suprarenal gland just isolated by their chemist, Takamine. Since then it has been used with unfailing satisfaction, care being taken not to use the solution in too great strength, pain being occasionally noted in the nose and face when 1-1000 was painted upon the turbinals; also in three cataract extractions it seemed to cause a profuse hemorrhage from the iris when iridectomy was done, which may have been only coincidence.

In fifty cases of conjunctival injection from causes varying in nature from simple congestion due to eye-strain to the most severe types of conjunctivitis, a single drop of adrenalin chloride solution, 1-5000, in the conjunctival sac, almost immediately caused a blanching of the membrane, commencing in about ten seconds, and reaching a maximum in from five to ten minutes, the effect lasting from one-half to two hours, according to the nature of the case. The blanching effect may be obtained by even a solution of from 1-12,000 to 1-10,000 in from thirty seconds to two minutes. For practical purposes a solution of 1-2,000 was found to give the best results in operative work upon the eye, causing no irritation that could be noted upon close observation. A two per cent. solution of cocaine mur. was used ten minutes prior to the instillation of the adrenalin, when operation was contemplated, in order that the effect of the anesthetic might not be interfered with, thus insuring a painless and almost bloodless result.

In ten strabismus operations and one advancement of the internal rectus muscle, two drops of a 1-1,000 solution rendered the various procedures almost bloodless fifteen minutes after being dropped on the conjunctiva, a deep as well as superficial hemostatic action resulting. In an operation at St. Michael's Hospital for the removal of an eye, not more than ten drops of blood were lost, and this after five drops of a 1-1,000 solution of adrenalin chloride was placed in the conjunctival sac, ten minutes prior to chloroform anesthesia. The effect seemed to extend to the central artery of the optic nerve, thus proving the rapid absorption of the active principle, with control of the deep as well as superficial circulation of the parts. In diseases of the eye with a tendency to iritis or choroidal disease, where an astringent is contraindicated, and in corneal ulceration, adrenalin should not be used; but whenever an operation is required, adrenalin will be found to be an invaluable adjunct.

It is in operations of the nose, throat and ear that the specific



action of the active principle of the suprarenal gland proves its great value as a hemostatic; the tendency to hemorrhage, controllable with difficulty, being one of the drawbacks of the surgery of these organs.

For a number of years the writer has used with great satisfaction various solutions of the suprarenal extract in the removal of the septal spurs, cartilaginous outgrowths, septal deviations and hypertrophy of the turbinates, the only drawback being the difficulty of preparing fresh solutions and the danger of irritation which so frequently existed. This, however, has been overcome, adrenalin giving better results without the concomitant disadvantages. The strength used was 1-2,000, applied by means of a cotton carrier, after local anesthesia had been accomplished by a two per cent. cocaine solution.

In this manner a number of large spurs and cartilaginous growths were removed with scarcely any hemorrhage. In addition to the hemostatic action, the contractile power of the drug upon the turbinate tissues greatly enlarges the field of vision for exploratory and operative measures.

For the removal of adenoid vegetation the vault of the pharynx is sprayed by a 1-5,000 solution of adrenalin with five per cent. of chloretone, the result being all that could be desired. Except in the case of very small children, the writer never uses a general anesthetic, thus obviating one of the grave dangers attending these operations, the obtunding action of the chloretone being quite sufficient in the majority of cases to render them practically painless. Cocaine is occasionally used in 3 per cent. solution, applied by swab to the pharyngeal vault, where the patient is over twelve years of age.

In hay-fever, the treatment of which has been so unsatisfactory, good results have been obtained by a spray of suprarenal extract to the nose, together with the administration of pil. anti-neuralgie (Brown-Sequard), one-half strength, thrice daily; and the use of sod. salicyl. grs. v., pot. bicarb. grs. xx., in aq. menth. pip., t.i.d.

Adrenalin being so much better than the old suprarenal extract, the writer feels confident of the results which will be obtained upon its use during the hay-fever season. In tonsillectomy the gland is to be painted by a solution 1-1,000 of the chloride, or a 1-5,000 solution injected into the tonsil, which renders the removal almost bloodless. In cantery operations on the tonsil the gland melts away like cheese, no hemorrhage interfering with the heating of the point of the instrument, a fact to be greatly appreciated.

As to drawbacks to the use of suprarenal gland extracts, a certain amount of controversy has existed as to the greater danger of secondary hemorrhage after its use, some eminent observers holding that such exists, others claiming never to have noted it. In the writer's opinion the great law of action and reaction holds good, and a slight tendency to after-hemorrhage exists undoubtedly, but is not in any sense dangerous and can be combated with unusual success if the cut surfaces are swabbed with a solution of glycerine and alcohol, equal parts. Another point is to be noted, and that is to be very careful to apply the adrenalin solution only to the part to be operated upon, thus limiting its action. During the past three years six cases have been treated in hay-fever patients where a severe pain behind the eyes came on after the suprarenal extract had been used in spray form, as well as uncomfortable sneezing. But adrenalin in normal saline solution has been almost without irritation, according to the experience of the writer.

## NOTES ON A CASE OF NEURITIS.

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By J. T. FOTHERINGHAM, M.D., TORONTO.

Assistant Physician, Toronto General Hospital.

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I was consulted on March 10th, 1909, by Mr. A. M., farmer, aged 28, kindly referred to me by Dr. McPhaden, of Mt. Forest, Ont., and found the case so interesting that I venture to report it.

1. *Family History*.—Unimportant.

2. *Personal History*.—Married one year ago, has issue one child, healthy. He was never in bed from ill-health till July 11th, 1908. On this day he was sitting for some hours in a very hot sun on a load of lumber when he became ill, vomited for some hours, had headache, and was one week in bed, then up and about, but with back first painful, then weak, so that he was completely idle, and much of the time off his feet till October. Since then he has regained gradually partial strength of back, and been able to drive about. After two or three weeks of mild pain in mid-dorsal to upper lumbar region of spine and around to the epigastrium and navel in front, he felt weakness come on in the trunk as the pain subsided. This weakness then for some weeks persisted, and is still present to a less degree, showing itself chiefly as—

(a) Inability to sit up from supine posture in bed without rolling over to one side, preferably the right, and using the hands by which to pull himself up.

(b) Inability while lying on the back to lift either foot towards the ceiling with the leg straight, except by grasping the thigh with the hand and lifting the limb. This movement was fully recovered some months ago.

(c) He found for some months after leaving his bed that if, while standing, he leaned back a little, he could not recover himself but would fall backwards unless caught or supported. Similarly he found it hard to keep the shoulders up and erect, the tendency being to sag forward with chest bent towards abdomen. These losses of motor power are plainly to be referred to the psoas muscles, the anterior abdominal muscles, especially the recti, and the erector spinæ muscles, respectively.

(d) He still finds, though there has been a marked improve-



ment in this respect, that he cannot hold up any weight before him at any distance from his body, as at arm's length. He cannot, for instance, lift grain on to a waggon, or pitch hay, without marked weakness referred to the area of the back above mentioned.

3. *Present Condition*.—Still unable to do any heavy or regular work. This has been the case now for eight months. Weight, 160 lbs. Average, 160-165 lbs. Most, 175 lbs. Pulse, 80. Temperature, 99 F. (at noon). Respiration, 18. Looks very strong and well, not anemic.

Digestive System—Normal.

Circulatory System—Normal.

Genito-Urinary System—Normal.

Nervous System—Brain and cranial nerves normal, never noted any subjective disturbance other than above mentioned. Motor functions, speech, eyes, and gait, all normal. Never any diplopia or sphincter trouble. Loss of power as above noted.

Erector spinæ muscles on left side normal, but on right, much wasted, fibrous, full of bare tendons, which could be rolled under the thumb much like catheters in a bag. Slight curvature of vertebral column to the left, involving the last two dorsal and first lumbar vertebræ, which were also slightly knuckled backwards, and with all those below them, standing out a little too plainly, partly from flattening of the muscular planes, especially on the right. The contour of the thorax was not disturbed, as the lateral deviation of the vertebral column was but slight.

*Reflexes*.—All normal, both cranial, arm, and leg reflexes, and cremasteric, except the umbilical and epigastric, which were normal on the left and entirely absent on the right side.

*Diagnosis*.—Toxic or infective neuritis of the three or four dorsal intercostal nerves on the right side, probably invading also the higher twigs of the lumbar plexus to the psoas.

Caries of the spine was excluded by family and personal history, mode of onset and progress of the case, and by absence of pain and tenderness to rough manipulation, jumping, etc., and to the hot sponge, as well as by the character of the curvature (lateral) and the shape of the slight kyphosis, and by the progress towards recovery.

Herpes Zoster may be mentioned, to be dismissed.

Anterior-poliomyelitis may, I think, be definitely excluded, for, amongst others, the following reasons:

(a) His age, 28 years—makes it less likely.

(b) The pain which accompanied the onset, and,

(c) The slowness and partial character of the loss of power, and (d) The extent to which recovery has occurred.

*Prognosis.*—Good. Recovery slow and probably not complete. The most cheerful feature of paralysis due to neuritis is that the physician can safely assure the patient, even after the lapse of a year, that farther recovery will take place.

The only measures from which improvement may still be expected are, moderate exercise at his usual employments, with massage, electricity, and possibly continued small doses of strychnine.

# Selected Articles.

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## ALCOHOLIC INSANITY.

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BY J. O'CONOR DONELAN, L.R.C.P.I., L.R.C.S.I.

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In to-day's lecture I intend to deal with that most important section of mental disease which is due to, or aggravated by, indulgence in alcohol. About ten per cent. of the cases admitted to our asylums are directly caused by intemperance, while fully 15 per cent. more, though originated by some other causes, are aggravated by it. As in some of the cases of melancholia and paranoia you have seen, the patients suffering from various ill-defined, unpleasant sensations in the early stages of their disease, vainly sought relief in delusive stimulants. At first probably a sense of gratification may have been experienced, but very soon the debilitating effects of the alcohol crushed out the resisting power of the system, leaving the mind an easy prey to the ravages of hallucinations, delusions, and general decay. No doubt many mild cases of insanity would never develop sufficiently to require asylum treatment if they could have been prevented from trying to "cure themselves," or "cheer themselves," as they express it, in the early stages of the disease.

The type of insanity resulting from alcoholism is by no means constant. Impulsiveness, exaltation, depression, stupor, etc., may be the characteristics of different cases, while epilepsy is often seen for the first time under its influence. It would seem, indeed, that whatever individual predisposition there may be to mental derangement, it is developed under the alcoholic influence.

That hereditary tendency plays an important part in reproducing intemperance and insanity in families is generally admitted, notwithstanding the theory that acquired traits are not transmitted. On looking through our asylum records it is remarkable how often we see evidence of neurotic inheritance amongst our alcoholic cases, and also the frequency of alcoholism in the family history of our feeble-minded and insane patients, who never indulged themselves in alcohol. A kind of mutual dependence seems to exist between alcoholism and insanity, each helping the other in a vicious circle, and it may be to the advantage of our race that they lead to physical



degeneration and decay—probably one of Nature's methods of getting rid of the effete.

Alcoholic insanity is classified thus: (1) Dipsomania; (2) Acute Alcoholism (Drunkenness); (3) Delirium Tremens; (4) Mania-a-Potu; (5) Chronic Alcoholic Insanity.

*Dipsomania* is a form of obsessional insanity in which the imperative idea seems to compel its victim, often against his reason and natural inclination, to break out into alcoholic excess.

J. F. is a remarkable case of this kind. Up to 30 years of age temperate and industrious, held a first-class position in a large commercial establishment. He was found in his office in a profound state of intoxication. He was taken home, where he continued drinking, quite regardless of consequences, for some days, when he became violent, delusional, and afflicted by hallucinations of sight, hearing, and taste, and was then committed to the asylum, and entered as suffering from mania-a-potu. He made a good recovery, and stated that for some days he had been haunted by the idea that he should drink whiskey, not that he cared for it or wanted it, but still the idea kept coming before him, and at night it kept him awake. He could think of nothing else. He said it seemed as if some misfortune would come upon him if he did not drink, so he gave way. He remembered a kind of mad delight when he did so. If he knew it was poison he said he could not have prevented himself from drinking it. It seemed as if his nerves or mind got upset before he took the drink. Fervently he said he would never, never drink again, and I am quite sure he earnestly meant what he said. Yet within a year he was again admitted to the asylum, and went through pretty much the same course. Since then his family had become alive to looking after him, and five years have elapsed since his last attack, but I am informed that at about the same time each year he has had to leave his work for three or four weeks, during which it was with the greatest difficulty he was restrained from "breaking out." Last month he "broke out," and now seems to be physically and mentally breaking down. Truly a case of obsessional insanity leading to drink, and drink leading to acute alcoholic mania.

Of acute alcoholism or drunkenness it is unnecessary for me to say very much, for such cases are usually dealt with by the general practitioner or the police. However, they are of interest, as they constitute miniature cases of insanity running through the several phases—elation, exaltation, depression, and stupor—in the course of a few hours. Epileptiform convul-

sions may be noticed in a certain number of cases, and in these the mental disturbance often lasts for some days, during which they are liable to be mistaken for epileptic insanity, and committed to the asylum. D. G. is such a case, admitted here recently as an epileptic maniac. He had been on a drinking bout, had an alcoholic (epileptiform) seizure, was sent here, where under good feeding and no drinking he quickly recovered and will be discharged in a few days. You will observe the absence of that dull, confused apprehensive expression of countenance which is so noticeable in the average sufferer from epileptic mania.

*Delirium tremens* is another class—or rather degree—of alcoholic insanity, more frequently treated outside than within our asylums, and as it comes into the general hospital course I will not occupy much of your time with it. It commonly occurs in those who habitually drink freely, and who have recently been indulging to an abnormal extent. Curiously enough, we find that in many instances a distaste for drink accompanies the first symptoms of the disease, and then we are told that it was the sudden stopping of the drink that caused the upset. A chill, a shock, or an accident is often the determining cause of the breakdown.

Restlessness, irritability, loss of appetite, disturbed sleep with fearful dreams, soon total loss of sleep, hallucinations of a terrifying character haunt the sufferer; he is muttering, incoherent and wandering, or shouting in terror. It is difficult to fix his attention. He is liable to mistake those about him for enemies, and to make violent attacks on them under the misapprehension that they are trying to injure or kill him. The suspicions of the habitual drunkard are exaggerated in *delirium tremens*.

The physical symptoms: Face flushed, conjunctiva suffused; the tongue tremulous, thickly furred, becomes dry as the disease progresses; pulse quick, soft, and full at first, later small and irregular. The temperature may rise to 102 deg., but it seldom goes above 101 deg. in uncomplicated cases. The skin is moist or perspiring, the urine scanty, dark-colored, and high sp. g.

In favorable cases at the end of the third or fourth day marked improvement takes place. Sleep may come on naturally and last for ten or twelve hours, when the sufferer may awaken much refreshed, the delirium and trembling are lessened and general improvement follows pretty quickly. In unfavorable cases the pulse is quick and feeble, the delirium of a milder

type, the face pale; the patient lies on his back in a semi-comatose state; convulsions may supervene, followed by exhaustion and death, or hyperpyrexia may herald the end.

*Treatment*—In all cases of delirium tremens one should be prepared for and guard against heart failure, which is liable to occur even when good progress towards recovery seems to have been made. The patient should be kept as quiet as possible in a subdued light, but total darkness must be avoided because it tends rather to aggravate the terrors. To promote sleep and build up the patient's strength are the points to be aimed at. Plenty of nourishment must be given in small quantities at a time, milk and eggs being chiefly used. One must be very careful in prescribing drugs. Chloral, in doses of 15 to 20 grains, may be given every six hours, and bromidia is a preparation which I find particularly useful in these cases.

It is a debatable question whether delirium tremens cases should be sent to asylums or not. No doubt we are more suitably equipped for dealing with them than general hospitals. We have trained attendants to care for them, small isolation rooms, padded rooms, and grounds for air and exercise during convalescence. Against all this is the fact that certification as insane involves many disabilities; it shuts a man out of practically all public services, and lowers the value of his life for insurance purposes, etc. So, all things considered, it is only in extremely violent cases that the asylum should be resorted to.

Diagnosis may be confused with acute delirious mania, but with the history of the case, and remembering that in the latter the hallucinations are not terrifying, there need be little difficulty. The delirium of pneumonia in drunkards is liable to be mistaken for it, but physical signs easily settle the question.

*Mania-a-Potu* occurs in persons of temperate habits who, being of neurotic taint, give way to drink for a short time. In them the intoxication seems to continue for some time. In a general way the mental symptoms resemble delirium tremens, but the expression of terror is seldom very striking, the tremor is absent or only trivial, the patient does not look ill or broken down, and he generally recovers within a few days or so.

D. C. is a case of this class. Admitted three weeks ago for assaulting a policeman, he was in a very restless, noisy, excited state for three days, when he fell exhausted into a sleep of about 15 hours. Since then he has been quite tranquil, recognizes that his mind was upset, and says he mistook the policeman for a man he thought was on the watch to injure him.

C. E. is an interesting example of the alcoholic development



of latent defects. His family history is very unfavorable. Two brothers are cases of ordinary epileptic mania, an uncle suffered from chronic delusional insanity, and other relatives are known to have been insane. He served as a soldier of good record up to five years ago when he went on a drinking bout, had an epileptiform seizure, followed by maniacal excitement and delusions of persecution against an officer. He was committed to the asylum and made a speedy recovery. He was discharged and worked as a laborer for nearly a year, when he again drank heavily for three days; as before, he had an epileptiform seizure, followed by a severe attack of mania, same delusions as previously, and made a good recovery within two months. Since then he has been discharged and readmitted three times; same course, but recovering more slowly on each occasion. He was last admitted three months ago, and you see the delusion of being followed by the officer still continues, with the further development that he threatens to shoot his persecutor whenever he gets the chance. Probably the delusions have now become permanent. It is only under alcoholic influence that the seizures occur.

Closely allied to the above is the recurrent insanity of the common drunkard. He is generally one of little strength of character, he lacks inhibitory power, and is largely the creature of habit. If with drinkers, and in the way of it, he drinks; if not, he may continue temperate for a long time. As our patients express it, "I could take it or let it alone, company does it," "I never cared for drink." These people form an intermediate class between mania-a-potu and chronic alcoholic insanity. The symptoms are less severe, the duration longer and the probability of recurrence much greater than in the former; the constitutional enfeeblement in early attacks is trifling, the appetite and general health recovering quickly when alcohol is withheld. Hallucinations and delusions are indefinite and very temporary, and restoration is accomplished in a week or ten days. With recurrences recovery becomes slower, delusions and hallucinations obtain a firmer hold and gradually they merge with the ranks of the chronic alcoholic maniacs and demented. It is unfortunate that the law does not afford some means of restraining these people in the early stages of degeneration, to protect them from their own weakness and the rate-payers from the burden of their maintenance when they have reduced themselves to the stage of absolute uselessness.

*Chronic Alcoholism and Chronic Alcoholic Insanity.*—These are forms of mental derangement which result from steady

drinking for a prolonged period. The alcohol is taken in small quantities, frequently repeated. Some confusion and impairment of memory, restlessness and irritability of temper, degradation of character, tendency to lie and use filthy language, may exist for some time before any very definite symptoms appear. Sensory and motor disturbances are frequently complained of, while gastric and digestive troubles are not uncommon. As the malady develops there is a general weakening of the intellectual faculties. The memory, particularly for recent events, becomes markedly defective, paramnesia is frequently present, attention fails, the patient grows suspicious and anxious; he is no longer able to attend to his ordinary duties, and soon he becomes incapable of looking after himself; abnormal sensations are experienced, due to the action of the alcohol on the nervous system. These are usually the starting points of hallucinations and delusions, the patient attributing them to external influences. His failure in business and general breakdown he persuades himself are caused by an enemy, and his sensations or hallucinations he believes to be a continuation of the persecution, it may be through electric or hypnotic influence. That poison is being put into his food or puffed in at the keyhole is frequently complained of; alterations of sense of taste and smell are frequently found in such cases; the delusion of poison originating in hallucination of taste, coupled with the idea of persecution. The persecutory delusions are generally in relation to some near associate, such as wife or husband. The above is practically the case of this patient M. B. To his wife, as you see, he attributes all his misfortunes. The immediate cause of his committal was that he made a violent attack on her, under the belief that she attempted to poison him. His insane inconsistency is noteworthy. He explains that she put poison in his tea, but that when she looked away he exchanged her cup for his own, and although she suffered no ill-effects from drinking that which was intended for him he still believes it was poisoned.

The insanity of chronic alcoholism is liable to be mistaken for general paralysis of the insane. Exaltation and extravagance may occur in either, but the general paralytic tends to buy quantities of the same thing (a general paralytic lately admitted here had 26 watches on him); the alcoholic goes in for more variety. The general paralytic seldom attempts to reason or explain his delusions; he simply makes wild delusional statements of wealth or power, but does not explain much how he came by it. The alcoholic with the same delusion will explain how he came in for it, how successfully he invested it, etc.

In the chronic alcoholic the knee reflexes are usually absent or diminished; in general paralysis they may be increased, particularly in the early stages.

In both the tongue is tremulous, but in general paralysis it is ataxic also.

There is greater loss of facial expression in general paralysis. The pupils are usually unequal and often irregular in general paralysis. Headaches favor diagnosis of general paralysis.

Expression of terror is more frequent in alcoholism than in general paralysis; vivid visual hallucinations frequent in alcoholism, rare in general paralysis. The history of the case is naturally of much assistance. If chronic alcoholism, the patient has been pretty steadily tipping for years; if general paralysis he is more likely to have developed his intemperate habits suddenly, and to have gone to extremes at once, for the general paralytic does everything in extremes.

The prognosis in such cases is unfavorable; yet we see very unpromising ones make pretty good recoveries, particularly if a first attack. Age is, of course, an important factor, those of advanced years tending to run into dementia. Profound loss of memory in a young person is unfavorable. Even in those regarded as good recoveries there is almost invariably a perceptible degree of mental enfeeblement left. I certainly cannot call to mind a case in which a patient quite regained his normal strength of mind.

The treatment consists of removal of the cause, generous feeding, which it may be necessary to forcibly administer in some cases. Sulphonal and trional are about the most satisfactory hypnotics in all alcoholic cases except delirium tremens. As convalescence progresses it is of importance to afford much outdoor exercise, cheeriness of surroundings, and generally to enkindle a bright view of life, with hope and prospect for the future. In some a sense of despondency occurs during convalescence, which must be combated, lest melancholia should supervene. As a rule, in these, as in most other forms of insanity, one of the best guides we have to gauge if recovery has taken place is to find that the patient recognizes his mind had been upset, and that he fixes a period at which he found himself regaining his senses.



## ON ECZEMA IN CHILDREN.

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BY MEDICAL COUNCILLOR MAX JOSEPH, M.D., OF BERLIN.

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Diseases of the skin offer so many peculiarities in childhood that they well repay special consideration. This applies very particularly to the most frequently occurring form—eczema. It may be affirmed without exaggeration that the majority of infants suffer from eczema in some form or other. Thus it happens that the disease is liable to acquire chronicity from the fact that it is exposed to unsuitable treatment in the first instance. The majority of forms emanating from a single isolated spot may extend over large tracts of the body, and rapid cure is then a matter of some difficulty. It is fortunate for us medical men that the laity are unable to discriminate between the legitimate action of a particular drug and the damage which may be caused by it. The inquiry often made by relatives as to whether it was not the drug used by the medical attendant which first “brought the rash well out” can, objectively considered, only be referable to the powerful irritant action exerted by the drug contributing to the extension of the primary lesion. The mischief lies in the fact that no fundamentally uniform mode of treatment among competent authorities has hitherto been possible, the widest views being current on the subject. It therefore excites no wonder when while one medical man appeals to one authority for his mode of treatment, another medical man perceives in this treatment what almost amounts to technical faults.

Thus, in undertaking in the present paper to deal with the subject of eczema in childhood, it is my intention to give the results of my own experience. The number of my observations has now become very considerable, and it has been my purpose to report upon them when opportunity should occur. I therefore owe Professor Baginsky a special debt of gratitude for having assigned this theme to me in the pages of *Folia Therapeutica*.

In the first place, a word on the subject of etiology of eczema in children. It has rightly become the endeavor of the later school of dermatologists to bring itself into harmony with the giant strides made in late years by the science of bacteriology, and investigation on these lines has not failed to leave its imprint upon the inquiry as to the origin of eczema. In opposition to the view, chiefly supported by Hebra, that local irrita-

tion is the principal factor concerned in the production of eczema, voices have not been lacking to emphasize the importance of the parasitic theory. It is indeed true that in the height of the inflammatory process, during the moist stage, staphylococci are found in the secretion. It is, however, remarkable that this discovery is never made in the early stages of the disease, but only at its height. Thus the presence of these ubiquitous organisms does not as yet point to their pathogenicity. On the contrary, it would be difficult to lay the blame to the same organism which in one case is the cause of acne, in another furunculosis, and in yet a third forms the etiological factor which determines an attack of eczema. It is, however, quite probable that some trifling traumatism determines the penetration of staphylococci into the lymph spaces of the cutis, and that there, owing to disintegration of the bacterial body, endotoxins are set free. Since these toxins are known to differ in their nature, it is quite conceivable that varying pathological phenomena may be produced by them. Anyhow, from the investigations of Bockhart, Gerlach, and Bender we have acquired evidence upon which to support some such supposition. By experimental inoculation with staphylococci, these observers have actually succeeded in producing pathological conditions which, clinically at any rate, are indistinguishable from eczema. In childhood, and especially during infancy, the skin is particularly susceptible to traumatisms of a trifling nature. Apart from accidental small woundings, an etiological factor of great importance appears to me to lie in the frequent washing of infants; in childhood the skin is naturally more tender than in adult life. Generally speaking, children are not only bathed and cleansed with soap once during the day, but are also washed from top to toe morning and night. Thus it is no exaggeration to state that they are bathed thrice daily. This is too much of a good thing. It is true that many children with more resistant skins are able to bear it, but in others, where the skin is more delicate, this frequent source of irritation is responsible for a catarrhal condition of the skin, in other words, eczema. The traumatism in such cases may be furnished by the soap, for the ordinary soaps are alkaline and, owing to excess of alkali, effect the solution of the epidermis. That which for adults in similar circumstances is serviceable for cleansing purposes can be in children productive of the greatest harm. To prevent too great a degree of desquamation of the epidermis and the occurrence of slight fissures, children should at least be rubbed with an in-

different emollient after their bath. Still more advisable, however, is the prophylactic cleansing of children with neutral soaps. For this purpose I can recommend the contrifuged soaps suggested by Liebreich, of the type of which is the children's soap manufactured by Heine, of Koepenick, near Berlin.

In the second place, the question must be raised as to whether the food factor plays any part in the production of eczema. From the earliest times eczemas supposed to have come under this category have been termed "milk scab." I must confess that I have never been able to satisfy myself that milk of a particular kind has any influence on the production of eczema. The latter is often seen to occur in children irrespective of whether they are nourished naturally or artificially. All this, of course, applies provided that no coarse pathological changes exist in the digestive apparatus, in which case the milk given may play the rôle of heterologous proteid, and as such may produce changes in the skin of a toxic nature. This may, of course, happen in children at the breast as well as in children artificially reared, for in both cases the proteid is not assimilated. Interference is required in some cases owing to over-nourishment, in others to under-nourishment, and in others again to irregularities in nourishment. As a general rule, however, in the treatment of eczema in children, provided the child is thriving on it, I suffer the nourishment to continue without objection. On the other hand, other observers, chief among them Finkelstein (*Mediz. Klinik*, No. 37, 1907), have drawn attention to the fact that a diet which while being poor in salts is at the same time rich in proteid and fat exerts favorable effects upon infantile eczema. A litre or other quantity of milk suitable to the age of the child is fully curdled by means of pegin or essence of rennet. The greater part of the whey is removed and one-fifth (reckoned from the quantity of milk used) filled up to the original volume with barley water. The firm curd is rubbed through a fine hair sieve in order to render it fine-flaked, washed several times by flooding it with water, and then added to the mixture of whey and barley water. Finally, from 20 to 40 grammes of powdered sugar are added. The whole forms a viscid broth which is readily taken by children; it contains the whole of the casein and fat of the milk used, but only a fifth part of the salts of the whey.

I do not, of course, venture to throw any doubt upon the observations of Finkelstein, and will therefore merely state that complete cure is observed quite as often by purely local treatment without this change of diet. I have prescribed the Finkel-



stein treatment often enough, but, as I have been unable to obtain the desired result without the additional aid of local treatment, I am accustomed to give greater attention to the latter. I am glad to learn from a recent publication by Spiethoff (*Deutsche mediz. Wochenschrift*, No. 27, 1908), that he likewise has been unable to observe any direct influence exerted by the Finkelstein diet on the eczema cases under his care.

Before doing anything else I am accustomed, for the reasons above stated, to forbid baths of every kind. Time after time have I seen baths of permanganate of potash, boracic acid and other substances prescribed elsewhere exert directly harmful effects, and even an ordinary cleansing bath used too early delays cure or brings about relapse. For the complete cure of eczema, therefore, I require that the patient shall be neither washed nor bathed. The further endeavor of our treatment in acute cases must be directed to allaying weeping from the affected parts as quickly as possible. For this purpose two courses stand open to us: we may either apply astringent fomentations or drying-up powder. For the former method both resorcin and acetate of aluminum are especially to be recommended. As to which of the two is the better remedy it is difficult to decide. It is a question of experiment. At one time resorcin acts well, at another—in an apparently identical case—better results are obtained from Burow's solution. It is probable that small cellular changes play some part in the individual process which we are unable to discern clinically, but which afford varied indications. I dissolve 10 grammes of resorcin in half a litre of water and use the fluid for a continuous series of fomentations. Of the liquor aluminii acetici I give two tablespoonfuls in 250 c.cm. of water. In the event of the desired effects not being obtained after a few days, the treatment is changed, powder being substituted. The best form is rice powder (*amylum oryzae*). The parts are well powdered several times a day until, after the lapse of some days, we are successful in allaying the weeping and bringing the eczema into the dry stage.

The skin, which is now in a state of some tension, chiefly requires inunction with an indifferent ointment. Here again it is largely a question of experiment, since it cannot be foretold with certainty which ointment will act best in a given case. In one case a serviceable application will be from 3 to 5 per cent. boracic vaseline, such as:

R.

Acidi boric pulv. 15 to 25 gr.

Tere cum vaselin. americ. alb. opt. ad 2 oz.

In another child good results may be achieved with Kaposi's unguentum vaselin. plumbicum. Unfortunately, however, we see often enough, in spite of initial benefit, the occurrence of relapses, and the diseased parts again return to the weeping stage. We may then make use of the paste introduced by Lassar. As this contains fat and powder in equal proportions, its action is both drying and emollient. In acute eczema we may use a zinc paste composed as follows:

R.	
Zinci oxidi	6 drams.
Amyli	2 drams.
Vaselin. americ. alb. opt.	1½ ozs.

This must be applied to the thickness of a knife-blade two or three times daily and covered with gauze. Every third day it is necessary to remove the ointment with olive oil in order to decide whether or not the treatment shall be continued. As soon as absolute dryness is established and hyperemia begins to be less pronounced, we may proceed to the more comfortable employment of the lotion introduced by Jadassohn, composed as follows:

R.	
Zinci oxidi	
Amyli	of each 5 drams.
Glycerini	3½ drams.
Aq. dest.	ad 3 ozs.

This fluid should be well shaken and applied by means of a large brush several times a day to the whole of the affected part. It dries by itself in a few minutes and further dressing is unnecessary. It is easy to imagine how comfortable such a form of treatment may be, both for the child and the nursing staff. Instead of it the lead-water liniment of Boeck is sometimes to be preferred:

R.	
Talei pulv.	
Amyli	of each 5 drams.
Glycerini	2 drams.
Aq. plumbi	ad 3 ozs.

This is to be used in the same way as the lotion already mentioned.

In many cases, however, no progress is made with any of these prescriptions; the child is tormented with itching, which

continues unabated both day and night. In order to allay this, tar is the remedy which chiefly stands at our disposal. It should always be borne in mind, however, that the early use of tar is a two-edged sword, and that often enough retrogression or the recurrence of weeping follows upon apparent improvement. I therefore advise that the transition to tar should only be made when absolute dryness is established, and when hyperemia is no longer a prominent feature. A less irritant action is possessed by the liquor carbonis detergens (Wright). While the skin is still in a state of tension, it should be used in the form of an ointment, mild at first but stronger afterwards:

R.

Liquor carbonis detergens	1½ to 2½ drs.
Ung. leniens	ad 3 drams.

Should the skin remain quite dry and be thus able to bear more powerful medication, we may proceed to tar lotions:

R.

Liq. carbonis detergens	1½ to 2½ drs.
Oxide of zinc	5 drams.
Glycerini	7½ drams.
Aq. dest.	3 ozs.

The convenience of the methods above described renders tar in this form almost indispensable in childhood.

In conclusion, however, it must be stated that pathological processes are met with in practice in which all the measures above mentioned do not suffice, and the itching still continues in spite of treatment. We are then obliged to proceed to the use of stronger preparations of tar, such as oleum cadini, oleum rusci, or oleum fagi. It is here that the greatest caution must be exercised, as too drastic a preparation may place in jeopardy results already achieved with the greatest trouble. We therefore begin with a very weak dose, which we incorporate in a paste, and gradually increase as time goes on:

R.

Ol. cadini pur.	1½ drams to 2½ drams.
Zinci oxidi	6 drams.
Amyli	6 drams.
Vaselin. americ. alb. opt.	3 ozs.

With this application, as a rule, the desired result is obtained, and it only seldom happens, chiefly in cases where the disease has assumed a chronic form, that it is necessary to



resort to the use of pure tar. Should this be necessary, however, the diseased parts should be painted with pure oleum cadini and the child afterwards placed for ten minutes in a lukewarm bath, and, after drying, anointed with boracic acid vaseline, finishing with powder.

On account of its antipruritic and keratoplastic properties, tar has become so indispensable to us that we often wish we had more preparations of it at our disposal. It cannot be denied that in the case of some individuals a certain idiosyncrasy prevails against a particular tar preparation, while another may be tolerated perfectly well. In many cases I am accustomed to employ a preparation called anthrasol. This is a fluid tar from which the coloring matter has been removed; it forms a light yellow oily liquid with a faint odor of ordinary tar. It is insoluble in water, but forms a solution in all proportions of absolute alcohol, acetone, olive oil, vaseline and vasogen. In 90 per cent. alcohol about 10 per cent., and in spirit. saponat. kalin. about 8 per cent. is soluble. Anthrasol is very little poisonous, and, even when used on large tracts of skin, gives rise to no toxic effects. A special feature is that irritant effects upon the kidneys have never been observed. I employ it in the following form:

R.

Anthrasol	25 minims.
Lanoline	2½ drams.
Amyli	
Zinci oxidi	of each 5 drams.

Lenigallol, the tri-acetate of pyrogallie acid, is also well in place in the treatment of the subacute stage of eczema. It reduces hyperemia and exudative infiltration. It is sometimes to be recommended, combined with anthrasol as follows:

R.

Anthrasol	25 minims.
Lenigallol	25 minims.
Zinc paste	ad 1½ oz.

The general treatment here briefly sketched requires sundry modifications and additions when certain parts of the body are under consideration. This remark applies with particular force to the hairy scalp. Pastes should never be employed in this situation owing to the difficulty with which the powder is afterwards removed from the hair. An excellent application is the cinnabar ointment introduced by Lassar:

R.

Hydrarg. sulfurat. rubr.	15 grs.
Sulphur. sublimat.	5 drams.
Ol. bergamottæ	15 drops.
Vaselini flav.	ad 3 ozs.

This ointment is spread three or four times daily to the thickness of a knife-blade, covered with gauze and the part bound up. Every third day the ointment is removed with oil and, should cure not be complete, the same treatment is continued. Even when dealing with very moist eczemas, one is sometimes successful in bringing them to a state of complete dryness within a short time. For after-treatment the following ointment may be used :

R.

Tinct. benzoini	25 minims, evapora ad 8 grs.
Adde zinci oxidi	15 gr. et ung. lenient. ad 3 oz.

I should also like to draw attention to the sulphur preparation, thiol, which is often capable of surprisingly good effects in eczema and erysipelas. One of its best properties consists in the alleviation it affords to burning and itching, which it will sometimes entirely abolish from the first moment of application; hyperemia and swelling also speedily disappear. Thiol is antiseptic, desiccating and keratoplastic; it is in no way irritant to tender skins, but rather is sedative. It may be used in various convenient ways such as the following:

For painting on.

R.

Thiol liquid	7½ drams.
Glycerini	2½ drams.
Aq. dest.	2½ drams.

As a powder for dusting.

R.

Thiol sicc.	25 gr.
Amyli	10 drams.

As an ointment.

R.

Thiol liq.	2½ drams.
Vaselini	5 drams.
Lanolini	17½ drams.

Finally, in obstinate cases one is sometimes obliged to resort

to the internal administration of arsenic. Personally, I have adopted the formula suggested by Neuberger:

R.

Liq. arsen. Fowleri

15 minims.

Aq. dest.

1 dram.

For an infant of 6 months one drop is to be taken daily for fourteen days. This is increased each week until five or six drops are reached. For older children a correspondingly larger dose should be employed.

By following these principles, one is generally successful in bringing cases to a successful termination within a moderate time; but the maxim applies to this as to so many other diseases: "A tree is not felled in one stroke, but perseverance leads to the desired goal."—*Folia Therapeutica*.



# Progress of Medical Science.

## MEDICINE.

IN CHARGE OF W. H. B. AIKINS, F. A. CLARKSON, AND BREFNEY O'REILLY.

### Differentiation of Abdominal Aortitis.

G. Zagari analyzes the clinical findings in some cases of inflammation of the abdominal aorta, and calls attention to the differential value of the discovery that blood pressure in the arteries of the legs is higher than normal, while persisting normal in the arteries of the arms. This discovery of an equally high or higher arterial tension in the arteries of the foot is a presumptive sign of abnormal conditions in the vessels below the diaphragm. Another instructive sign is the paresthesia of the legs, "as if they were asleep." These sensations are noted early, and in one case continued in tormenting fashion during the patient's stay in the clinic. The patients complain also of pain in the epigastrium, toward the left side and weakness. On account of the lack of objective symptoms, the disturbances are usually credited to neurasthenia. The aortitis is insidious and essentially chronic, the latent process causing no disturbances until exacerbation follows some intercurrent affection or excessive effort, the symptoms then being generally ascribed to some crisis in the stomach, liver or kidney unless the physician locates the true source of the trouble in the aorta. He gives several tracings of the arterial pressure in his communication which appeared in the *Riforma Medica*, Oct. 19, 1908.—*J.A.M.A.*

### Infusions of Digitalis in Heart Cases.

There is a general consensus of opinion amongst those who have had most experience of the various preparations of digitalis that, although the tincture, particularly the physiologically standardized tincture, is very good indeed, the best results of digitalis action are afforded by the infusion. The difficulty is that the infusion will not keep for any length of time; it has, therefore, to be made up freshly at short intervals, and in country practice this means that the medical man needs to make it

for himself. The following notes upon the effects of heat upon the infusion, the use of chloroform in preserving it for considerable periods, and the addition of carbonates for the same purpose, are points of practical importance. It must be assumed, of course, that the digitalis leaves have been carefully selected, gathered, and dried.

The usual method of preparing infusions is to heat to boiling point and to keep simmering. Bokay considers it wrong to prepare infusions of digitalis by heating. The active glucoside in the leaves becomes partly decomposed when heated. The best way of making the infusion is to macerate the digitalis leaves in cold, or only moderately warm water for at least three hours. Some observers go so far as to say that the human stomach should extract the glucoside for itself, and that, therefore, the powdered digitalis leaves should be given as such, as in the *pilula hydrargyri diuretica* of some hospital pharmacopœia.

When digitalis treatment is to be prolonged, and it is desired to employ the home-made infusion, it becomes a matter of importance to make the preparation keep good as long as possible. Chloroform, like chloretone (acetone chloroform), has often been used for purposes of preservation, and it is found to answer fairly well in the case of digitalis infusions. The following recipe is one of Stepp's:—

R Digitalis foliarum ..... ʒj.  
 Aquam ad ..... Oj.  
 Fiat infusum. Adde chloroformi ..... ʒiiss.

A dessert-spoonful of this may be given every two hours, or a larger dose at longer intervals, the dosage and its continuance being controlled by observations of the pulse, the urine, and so forth, as when the tincture is employed. The beneficial effects of the infusion are not likely to appear sooner than the third or fourth day, but in some cases they are remarkably good.

It has been suggested that a small quantity of sodium carbonate should be added to the infusion of digitalis in order to neutralize the vegetable acids it contains. The addition seems to lengthen the time during which the infusion will keep good without other preservative to several days. Focke's prescription is as follows:—

R Infus. Fol. Digital. Titr. .... ʒiiss. to Oj.  
 Sodii Carbonatis ..... gr. j.

Sig.: A tablespoonful to be taken every three hours.

—*The Hospital.*

### **Latent Malignant Disease of the Stomach.**

Heinrich Stern, in an article on latent malignant disease of the stomach (*Amer. Med.*), summarizes his conclusions as follows :—

1. A certain proportion of instances of gastric cancer run a concealed, that is, a latent course.

2. Latent gastric cancers may be divided into two general groups, namely, those which do not manifest their presence by any gastric symptom, and those concurring with indefinite gastric phenomena not pointing to malignancy.

3. The scirrhus, when located in the stomach, occurs much more frequently in a latent state than any of the other varieties of malignant disease.

4. Latent malignant disease of the stomach is often not recognized on account of the absence of pain.

5. The acuteness of certain instances of malignant disease of the stomach means nothing else than the rapid disintegration of a cancerous growth, the presence of which had not heretofore been recognized.

6. The average duration of gastric cancer is about twice as long as that of its apprehensible symptoms, and there are but very few instances of the affection, the beginning of which is synchronous with the advent of gastric phenomena.



## Editorials

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### CANADIAN MEDICAL ASSOCIATION.

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As announced in former issues the next meeting of the Canadian Medical Association will be held in Winnipeg, August 23-4-5.

The President, Dr. A. R. Blanchard, and his committees, have done much work in making the necessary preparations, and we understand that the prospects for a large and interesting meeting are of the brightest sort. The Association has been in existence for 42 years, and is at present in what may be termed a flourishing condition.

We learn from an editorial in the *Dominion Medical Monthly* that the Association has a membership of 1,500, but its revenue has been small because there has been no annual fee demanded from members excepting as they attend the meetings. An effort was made something like 30 years ago to collect such fee from all the members, whether they attended all the meetings or not, but after a couple of years it was deemed advisable to resume the "pay-as-you-attend" fee system. As a large proportion of the members attend about one out of every five meetings it was feared that an attempt to collect the annual fee from all the members might injure the Association. Our peripatetic system of going to different cities in all parts of our big country operates against a large permanent membership with a comparatively large fee or even a small fee collected every year. The majority of the members, however, have always favored such a system, considering it the one best suited for our Dominion. As a consequence, the proposal of some years ago to hold all meetings in one place, for instance, Ottawa, the Capital, found two supporters.

We are pleased to learn that there will be a large contingent from the East at the Winnipeg meeting, and we are told that our friends in the West will extend a hearty greeting.

We desire again to announce the fact that the meeting of the British Association for the Advancement of Science will be held in Winnipeg immediately after that of the Canadian Association.

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### TORONTO GENERAL HOSPITAL.

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We learn from the lay press of Toronto that the tenants have been ordered to vacate the houses situated on the ground recently purchased as a site for the new hospital. The funds available amount to about \$1,300,000, as follows: Government grant per University, \$300,000. City grant, \$200,000. Subscriptions, \$800,000. It is expected that the new hospital and site will cost about \$2,000,000, as follows: Site, \$580,000; buildings, \$1,400,000.

We are told, however, that the figures given as to subscriptions, grants, etc., do not represent the whole amount in sight, but we are also told that one of the Trustees stated a few days ago that the Hospital Board had \$1,000,000 available above the actual cost of the site.

The *Evening Telegram* thinks that the University ought to control general pathology and pathological chemistry, to the latter of which the University has made an appointment which is of profound significance to the development of medical education and to hospital efficiency. Of course this would be a great benefit to a large number of worthy institutions, including the Hospital for Sick Children, which are doing good work for the little ones of Ontario, and concludes the article as follows: "The University should, in view of the appointment of a professor of pathological chemistry, proceed to provide accommodation for the department, even if it anticipates the erection of the new hospital building."

We understand that at the conference between the American hospital experts, certain Canadian hospital experts and the Toronto architects it was decided to raze to the ground the

building formerly occupied by the school of pharmacy. It is expected that the main building will be placed on the north side of the lot about 50 or 60 feet from the street, and that other buildings, such as the pathological laboratory, nurses' home, out-patients' department, etc., will be placed on the south side of the lot.

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### PURE MILK.

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The campaign against impure milk which is now being waged is a vigorous one. At the present time we are especially interested in the work of three commissions. One of these commissions was appointed by the Canadian Medical Association, a second by the Toronto Academy of Medicine, and the third by the Ontario Legislature.

The fact that impure milk is a very common source of various kinds of infection is now fairly well appreciated both by the profession and the public. Mr. W. K. McNaught, M.P.P. for North Toronto, introduced the subject at the last session of the Ontario Legislature, and delivered a very able and very interesting address respecting the milk contamination. A most interesting discussion followed, and there was a general concensus of opinion that the Legislature should take some prompt action. As a result a commission was appointed, consisting of Dr. A. R. Pyne, the well-known analytical chemist, Chairman, and two members of the Legislature. The chief aim of the Committee will be to examine carefully the conditions existing in connection with the care of the cows, the methods of milking, and the care of the milk up to the time that it reaches the consumer.

One of the most important points considered will be the pasteurization of milk. There has been considerable difference of opinion as to the effects of pasteurization in the medical profession. There was a strong prejudice against this process a few years ago, and probably at that time the majority of the



profession considered that it had a somewhat injurious effect on the milk so far as its digestibility was concerned.

We note that Dr. John A. Amyot, of Toronto, who has studied the subject with great care for many years, and was for some time at least luke-warm as to his opinions, has recently stated that he is now strongly in favor of the process. He says the proper pasteurization with subsequent cooling to 45 deg. F. will remove the danger from many different diseases.

He says that to accomplish this a constant temperature of 150 deg. F. for at least 20 minutes is required. Machines to do this are now easily acquired. He refers to another fact which was not generally understood, namely, that the great majority of milk pasteurizers heretofore used are of the four-minute type, which are quite inadequate for the purpose desired. He considers that these "false security procedures" have done much damage to the reputation of the process.

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### THE PROPOSED TORONTO UNIVERSITY REGIMENT.

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We referred in a former issue to the proposed formation of a military regiment in the University of Toronto. Dr. J. T. Fotheringham, Colonel of the Army Medical Corps for Military District No. 2, the chief mover, feels satisfied now that the prospects are good. He expects the new university regiment will become a nursery for military officers all over the country.

The University authorities propose to start with a four-company battalion, having a staff of twelve officers. A number of the permanent corps and an adjutant will be attached to the staff and give regular lectures on military discipline, etc., and supervise the drill like subalterns at all military hospitals. The students who belong to the regiment will take a course and fit themselves for a commission. The engineer corps, from the science students, will probably be made about 200 strong. It has not yet been decided what the medical students are likely

to do. Many of them would like to spend considerable time at field ambulance work. It seems somewhat difficult to find much time for them because of the large number of lectures and clinical demonstrations which they are required to attend. As it is now, however, the course extends over five years, instead of four, and the number of dietetic lectures are likely to be curtailed, so it is hoped that the students will not be quite "lectured to death," and as a consequence will have more time for recreation and athletic sports. It is likely in this connection that the military drill will be made an option in the faculties where physical drill becomes compulsory for all the students.

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#### NOTES.

The Iowa State Medical Association held its 58th annual meeting at Dubuque, Iowa.

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The Ohio State Medical Association held its annual meeting in Cincinnati, May 5, 6, 7.

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The ninth annual meeting of the Canadian Association for the Prevention of Tuberculosis was held in Ottawa, May 19th and 20th.

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The next meeting of the American Association of Obstetricians and Gynecologists will be held at Fort Wayne, Ind., September 21, 22, 23, under the Presidency of Wm. H. Humiston.

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It is probable that an entire regiment of volunteers will be organized in the near future from the University of Toronto. It is expected that a \$100,000 addition will soon be made to the University gymnasium. The Governors of the University have also decided to proceed at once with the erection of the new provincial museum, which, it is said, will be without a peer on the continent. The building, which will cost \$300,000, will be erected on the south-west corner of Bloor and Avenue Road.

In our March issue we announced that Dr. Chas. D. Parfitt had severed his connection with the National Sanitarium Association, and had entered on private practice in Gravenhurst. The majority of his patients reside at the Minnewaska, under the charge of Mrs. Fournier, who was for ten years Superintendent of Hope Hospital, Fort Wayne, Ind. Mrs. Fournier originally lived in St. Thomas, Ont., but is a graduate of Harper Hospital, Detroit. We are glad to be able to report in this issue that this Sanitarium is filled, and a number of prospective patients are on the waiting list.

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There is a general feeling of regret among both physicians and nurses of Toronto because of the resignation of Miss Barwick, who was for many years the Registrar of the Toronto Central Registry of Graduated Nurses. We have very much pleasure in endorsing the opinions of the Editor of the *Canadian Nurse*, who speaks as follows: "Miss Barwick, a graduate of the Johns Hopkins Training School for Nurses, a member of an old and highly respected Toronto family, of high medical traditions, made such a success of the Registry that she was repeatedly invited to Ottawa, Cleveland, and other Canadian and American cities to address nurses on the subject. She has done good service every day of her occupancy of the Registrarship, and we part with her in that special capacity with genuine regret, and with a grateful sense of her good and faithful far-reaching labors. Miss Barwick's personality, her unselfishness, her conscientious discharge of her duty, counting nothing any trouble which would conduce to the comfort of the patient or the help of the physician, will not soon be forgotten."

We understand that Mrs. Downey has been appointed Registrar in the place of Miss Barwick.

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### **The National Sanitarium Association.**

We have received the annual report of the National Sanitarium Association for the year 1908. The Association is now in the 12th year of its existence, and its supporters have fairly good reason to be satisfied with its success. At the same time we believe that it has not met with the hearty support which this good work deserves. There appears to be in some quarters a certain amount of antagonism against this institution for certain reasons which we only partially understand.

It is eleven years since the Muskoka Cottage Sanatorium was



erected near Gravenhurst. At the present time it provides accommodation for 85 pay-patients, the rates ranging from \$8 to \$15 a week. Seven years ago the Muskoka Free Hospital for Consumptives was erected. It is situated about a mile from the Cottage Sanatorium. It provides accommodation for 107 patients.

The Physician-in-Chief, Dr. W. B. Kendall, offers a valuable suggestion. He advises that an invitation be extended through the Medical Society of Toronto University to six fifth-year students to visit the institution and receive clinics on chest and throat work for three days during the month of January. It is presumed that these six students would be chosen by the Medical Society. He also proposes that the expenses of these students should be met by the Trustees of the Sanatorium. At the same time he would wish it to be understood that these six students should present a report to an open meeting of the Medical Society after returning from Gravenhurst.

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### **The University and People.**

The Toronto *Daily Star* of May 1st, published an article with the above heading, from which we quote the following: "President Falconer, of the Toronto University, is asked to preside or speak at numerous gatherings of the most varied character. He consents as often as he can, and he always says something that is worth hearing. He devotes his mind and conscience to the task and gives the audience his best. There is something very engaging in his earnestness and hearty goodwill. By his evident sympathy with all sorts and conditions of men and women and his readiness to aid all good causes, Dr. Falconer is strengthening the position of the University of Toronto in this Province. He is adding to the number of ties which connect the University with the people and with all phases of the life of the people."

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### **The Case of Dr. A. B. Cook.**

Dr. Allan B. Cook, of Toronto, was tried before Judge Winchester and a jury on a charge of performing an illegal operation on a girl named Dolly Cutmore, in February last. The defendant, Dr. Cook, gave evidence on his own behalf, and admitted the girl had been a patient of his, but strongly denied

having done anything unlawful. The counsel who defended Dr. Cook asked Judge Winchester to withdraw the case from the jury as there was no corroboration of the girl's story, but His Honor refused, saying corroboration was unnecessary in cases of this kind. The jury, after deliberating about twenty minutes, brought in a verdict of "not guilty."

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### **Janeway Hall.**

Janeway Hall, the new residence building for the house staff of the City Hospital, on Blackwell's Island, New York City, was formally opened on April 15. It cost \$75,000, and contains, in addition to bedrooms for the 24 members of the staff, commodious dining, living and billiard rooms, and a library.

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### **Academy of Medicine.**

At the last annual meeting, held on Tuesday, May 4th, the following officers were elected for the ensuing year:

#### **MEMBERS OF THE COUNCIL.**

Officers: President, Dr. Alexander McPhedran; Past President, Dr. James F. W. Ross; Vice-President, Dr. A. A. Macdonald; Hon. Secretary, Dr. H. J. Hamilton; Hon. Treasurer, Dr. D. J. Gibb Wishart.

Chairmen of Sections: Medicine, Dr. Harley Smith; Surgery, Dr. A. Primrose; Pathology, Dr. G. Silverthorne; Ophthalmology and Oto-Laryngology, Dr. R. A. Reeve; State Medicine, Dr. J. F. Goodechild; Pediatrics, Dr. H. T. Machell.

Elective: Dr. N. A. Powell, Dr. E. E. King, Dr. A. H. Perfect, Dr. John Ferguson, Dr. F. N. G. Starr, Dr. J. M. Cotton, Dr. Walter McKeown, Dr. W. H. B. Aikins.

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### **Graduates in Medicine.**

#### **QUEEN'S MEDICAL COLLEGE, KINGSTON.**

Degree of M.D. and C.M.—E. J. Bracken, Ellisville; J. E. Brunet, Clarence Creek; L. L. Buck, Railton; E. P. Bryne, Kingston; D. R. Cameron, M.A., Lancaster; D. A. Carmichael, M.A., Unionville; H. E. Chatham, Stettler, Alta.; W. A. Claxton, Kingston; J. W. Corrigan, Roslin; P. O. Coulombe, Cheneville, Que.; W. H. Craig, Kingston; L. M. Dawson, Ottawa; C. S. Dunham, Kingston; Alex. Ferguson, Williamstown; J. E. Galbraith, Chatsworth; J. C. Gillie, Chapleau; T. J.

Goodfellow, B.A., Parham; Irvin Hardy, Davis, W. Va.; A. R. Houpt, Melbourne, Australia; C. A. Hughes, Grenada, B.W.I.; J. B. Hutton, Kingston; C. H. Knight, Georgetown, B.W.I.; H. M. Lermont, B.A., Trinidad, B.W.I.; A. Letherland, Glenvale; T. N. Marcellus, Williamsburg; J. J. McCann, Perth; M. C. MacKinnon, Whim Road Cross, P.E.I.; J. J. McPherson, Nigg, P.E.I.; C. J. McPherson, Metcalfe; O. W. Murphy, Portland; J. S. Quinn, Tweed; A. L. Raymond, Williamstown; B. C. Reynolds, Cornwall; D. Robb, B.A., Battersea; A. K. Salmon, Lucea, Jamaica; J. C. Shillaber, Regina, Sask.; J. H. Stead, M.A., Lyn; W. G. Wallace, B.A., Metcalfe; B. L. Wickware, Toledo; H. C. Workman, B.A., Kingston.

#### LONDON MEDICAL COLLEGE.

E. F. Jeffries, London; C. E. Brown, London; J. R. N. Childs, London; S. M. Fisher, London; Paul Poisson, Belle River; J. LeR. Anderson, Ailsa Craig; W. L. Lutan, Mapleton; J. E. Kidd, Mitchell; H. C. L. Lindsay, Strathroy; W. E. Bavis, Broughdale; R. C. Carroll, Middlemiss; Nelson George, London; R. G. Barrett, Freeborn; W. Gillespie, Seaforth; A. E. McLarty, St. Thomas; T. R. Phipps, London; J. A. Butterwick, London; R. G. Gordon, London; A. T. Stockwell, London; A. G. Robertson, Ivy; J. M. Taylor, Odell; W. M. Lancaster, Wyburn, Sask.; R. G. Mathews, Toronto; W. S. Rhyard, London; H. E. McCaul, Holiday; C. H. Alley, Petrolea; J. H. R. Stanfield, London.

#### GRADUATES OF UNIVERSITY OF MANITOBA.

M.D.—C. H. Bastin; F. C. Bell, B.A.; P. G. Bell, B.A.; J. E. Bloomer; E. S. Bolton; M. C. Bridgman; E. E. Bryans; E. E. Bugg; J. S. Clark, B.A.; W. A. Cooper; W. D. Dixon; C. C. Everson; E. Grant; W. E. Guest; M. Hjaltason; D. R. Houston; G. R. L. Ireland; H. T. Irvine; H. W. Lewis; W. N. Maines; A. E. Medd; A. E. McGavin; D. F. McIntyre; J. D. McQueen; J. A. McTavish; H. E. Montgomery; J. P. Palsson; N. J. Paul; W. W. Pirt; C. Rice; P. C. Robertson; W. Ross; A. J. Swan; E. J. Washington; D. V. S. Winkler; V. W. Wright.

C.M.—W. A. Cooper; C. C. Everson; A. E. McGavin; J. D. McQueen; C. Rice; W. Ross.

Silver medal—P. G. Bell, B.A. Bronze medal—D. F. McIntyre. O'Donnell gold medal in obstetrics—W. Ross. Hutchison gold medal (aggregate of the full course)—D. F. McIntyre.



## Personals.

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Dr. R. Rowan has removed from 301 Dundas Street to 552 Bathurst Street.

Dr. Fred. LeM. Grasett, of Toronto, sailed for England the first week in May.

Dr. Chas. Trow, of 57 Carlton Street, Toronto, sailed for England, May 4th.

Dr. S. T. White, of Shelbourne, has been appointed Associate Coroner for the County of Dufferin.

Dr. Kenneth Campbell, of Bruce Mines, has been appointed Associate Coroner for the District of Algoma.

Dr. W. F. Loucks, of Campbellford, has been appointed Associate Coroner for the Counties of Northumberland and Durham.

Dr. David Heggie, of Brampton, who has been in practice for about 44 years, has gone to England, where he will spend a well-earned holiday.

Dr. R. H. Mason, of 736 Gerrard Street East, has sold his practice to Dr. Hiram B. Thomson (Trinity 1889), and intends to go abroad for a year.

J. B. Leather, F.R.C.S., Eng., of London, Eng., has been appointed Professor of Chemical Pathology in the Faculty of Medicine of the University of Toronto.

Dr. Geoffrey Boyd, of 167 Bloor St. East, Toronto, sailed early in May for England. He expects to do some post-graduate work in England and on the continent.

Dr. Arthur W. Mayburry, 569 Spadina Ave., sails by the S. S. *Laurentic*, June 19th. He will visit several of the leading throat and ear clinics in Great Britain and on the continent.

Prof. William Osler, of Oxford, reached New York, May 29th. He was a very busy man from that time up to June 3rd, when he reached Toronto barely in time to deliver his address before the Ontario Medical Association.

Dr. J. A. Robertson, Medical Health Officer of Stratford, Ont., during his recent trip, spent some time in England and Scotland inspecting different sewage plants. He considers that the sewage disposal system in Bathgate, Scotland, is the best in Great Britain. It is a modification of the sewage tank system arranged to meet local conditions in the town, which has a population of about 10,000.

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## Obituary.

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### CHAS. J. McNAMARA, M.B.

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Dr. C. J. McNamara died at Superior, Wis., April 28th, aged 44. He graduated from the University of Toronto in 1889.

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### JAMES McMAHON, M.D.

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Dr. James McMahon died suddenly at his home, 294 Simcoe Street, Toronto, April 23rd, aged 79. He studied medicine at "Rolph's School," and became a licentiate of the Medical College of Upper Canada in 1850. He represented North Wentworth in the Provincial Legislature from 1875 to 1894. He was appointed Distributor of Stamps at Osgoode Hall in 1894.

## Book Reviews.

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**PRACTICAL DIETETICS.** By Alida Frances Pattee, special lecturer at Belleville, Mt. Sinai and Flower Hospital Training Schools for Nurses. New York City: A. F. Pattee, publisher. New York.

This book has been written for physicians, nurses and mothers. Miss Pattee has aimed at simplicity, brevity and exactness with reference to dietetic treatment in disease. We think she has succeeded. The work is sufficiently scientific and is at the same time eminently practical. We know of nothing better of its sort.

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**AID TO OBSTETRICS.** By Samuel Nall, B.A., M.B., M.R.C.P. Revised by C. J. Nepean Longridge, M.D., F.R.C.S., M.R.C.P. Seventh Edition. Publishers: Bailliere, Tyndall & Cox, London, England.

This is not the sort of a book we can recommend with any enthusiasm, but its great popularity among the students of Great Britain is shown by the fact that previous to this, the seventh edition, 24,000 copies have been sold.

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**SURGERY: ITS PRINCIPLES AND PRACTICE.** Volume IV. By 66 eminent surgeons. Edited by W. W. Keen, LL.D., Hon. F.R.C.S. Eng. and Edinburgh, Emeritus Professor of the Principles of Surgery and of Clinical Surgery; 562 text illustrations and 9 colored plates. Philadelphia and London: W. B. Saunders Company. Price per volume, cloth, \$7.00 net; half morocco, \$8.00 net. Agents for Canada: J. A. Carveth & Co., Limited, Toronto.

The fourth volume of this series contains that same amount of excellent care that the preceding volumes have shown. The editor, than whom there is no more thorough and careful operator, nor one with more experience, has certainly surrounded himself with the most eminent men in the profession to write on the many subjects.

The volume contains exhaustive chapters on "Hernia," by W. B. Coley, and "Surgery of the Rectum and Anus," by



Robert Abbey. The chapter on the "Kidney Surgery," by Joseph Ransohoff, is one of special excellence. The surgery of the bladder and prostate are most elaborately and exhaustively treated by the authors Bransford Lewis, Arthur T. Cabot, and Hugh H. Young, each of them an unquestionable authority. We would like, however, to see eliminated from the chapter on surgery of the prostate, controversial matters in reference to Mr. Freyer, on the suprapubic operation. A system such as this is has no space for such details. The writer of this review knows positively that Mr. Freyer disclaims any distinction as to the origin of this operation, but claims, and we have no doubt has a right to claim, that he perfected the technique and brought to a special prominence this operation. This may seem a small matter to some, but it is not; it is most important. Mr. Freyer objects to the operation being called Freyer's operation, although common usage has given it that distinction.

Dr. J. B. Murphy, of Chicago, in his clear, erudite style, has a most excellent chapter on the "Surgery of the Appendix Vermiformis." He has compressed the subject into 70 pages and still treats the matter in a most concise manner.

The chapters on Surgery of the Eye, Military Surgery, Naval Surgery, Tropical Surgery and Influence of Race, Sex and Age in Surgical Affections, are all valuable additions to this volume.

We have only to pass our highest commendation on this volume, which is equal to the preceding ones, and feel sure that the remainder will be kept up to the very high standard.

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THE OPERATIONS OF AURAL SURGERY, together with those for the relief of the intracranial complications of suppurative otitis media. By C. Ernest West, F.R.C.S., Aural Surgeon to St. Bartholomew's Hospital, and Sydney R. Scott, M.D., F.R.C.S., Assistant Aural Surgeon to St. Bartholomew's Hospital. With illustrations. London: H. K. Lewis, 136 Gower Street. 1909. Price, 7s. 6d. net.

This is a very good little book of some 190 pages, which fills a want in connection with the operations of aural surgery. The author's method is to give the indications for the operation, the details of the preparation for the operation, a description of the operation in stages, and go into details, not often found in text-books, in connection with the after-treatment and complications. This is of great use to the practitioner who has not had

the opportunity of observing many cases during the treatment subsequent to the operation. The book is well, though not profusely illustrated, but of particular excellence are the photographs of the instruments used, which are numbered, and their names given on the adjacent page.

There is an appendix giving a brief account of some forty illustrative cases.

One can heartily recommend this volume to any one seeking for an account of the details of the operations of aural surgery.

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CAUSATION OF SEX. By E. Rumley Dawson, L.R.C.P. Lond., M.R.C.S. Eng. Publisher: H. K. Lewis, 136 Gower Street, W.C.

The author tells us that he has written this book not as an outcome of a sudden inspiration and guess, but as the result of prolonged and careful study, and he claims that he has discovered nature's secret as to the causation of sex.

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An analytical index of Volumes 1 to 10 of the *Medical Review*, and a digest of the facts important to the practitioner in the medical periodicals of the world from 1898-1907, has been received.

The *Medical Review*, one of the ablest of British medical journals, is published in London, England. This index is not simply a means of reference to the text, but is also a statement of the most important facts therein. In this respect it resembles "Neale's Digest," to which the editors hope it may in some sense be a successor. The references to treatment are given in detail when possible.

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#### **"The Medical Era's" Gastro-Intestinal Editions.**

During July and August, *The Medical Era*, of St. Louis, Mo., will issue its annual series of numbers devoted to gastro-intestinal diseases. The July number will take up the usual bowel disorders of hot weather, and the August number will be devoted entirely to typhoid fever. These issues always attract considerable attention. The editor will forward copies to physicians applying for same.

## Selections.

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### **The Relative Value of the Finger and the Sphygmomanometer in Estimating Blood-Pressure.**

For many years the only method by which the physician could estimate blood pressure was by the use of the finger-tip placed upon a superficial vessel. During the last decade, however, a considerable number of forms of apparatus have been placed upon the market by means of which more accurate and definite estimations could be made, and without doubt they are of considerable value in clinical medicine, aiding us in gaining a correct conception of the exact condition of the patient's arterial tension, and so helping us materially in deciding as to the administration of drugs which are known to reduce arterial spasm. We have long thought, however, that the assertion, which has been made by many, that the condition of the arterial wall and surrounding tissues has little or no effect upon the results which are obtained with these instruments is incorrect, and that, in some cases at least, the use of the finger-tip to determine arterial tension is an exceedingly valuable method of estimation.

For this reason we are much interested in an article upon this subject which appears in a recent number of the *British Medical Journal* from the pen of Dr. William Russell, one of the physicians to the Royal Infirmary in Edinburgh. He not only asserts his belief that the sphygmomanometer may give distinctly erroneous results by reason of the condition of the vessels and their surrounding tissues, but he has made a considerable number of experiments upon arteries removed from the body immediately after death, and treated in various ways whereby their compressibility was changed. He asserts that the vessels with thickened walls require much greater pressure to stop the pulse, or to occlude the blood flow, than do vessels with normal walls, and that therefore thick vessels may cause the instrument to give an estimation of a higher pressure than actually exists. Russell even goes so far as to assert that when the circulation is exceedingly feeble and the arteries moderately elastic the sphygmomanometer may give an erroneous reading, since he thinks that under these circumstances the arteries contract to accommodate themselves to the smaller quantity of blood passing through them, which results in a thickening of the wall and diminution of their elasticity. Thus, in the case



of a woman who was moribund from malignant disease scarcely any pulse could be felt with the finger-tip, yet the sphygmomanometer registered a pressure of 95 millimeters. In other words, while the sphygmomanometer is an exceedingly valuable clinical aid it is not to be considered absolutely correct in its results in all cases, and the touch of the physician is of value in determining what treatment should be instituted after the sphygmomanometer has been used.—*Therapeutic Gazette*.

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**Laryngeal Spasm in the Adult.** L. Neufeld. *Arch. fur Laryngol.* Vol. XX., part. ii.

The first of three cases reported by the writer referred to himself. Living in the house with him was a child suffering from a severe attack of whooping-cough. During this period Neufeld contracted severe naso-pharyngeal catarrh, followed in four days by sudden laryngeal spasm. It lasted only a few seconds, but was attended by marked cyanosis and feeling of intense suffocation. The attacks continued for six days, when they were relieved by a spray of hot lime water. They did not recur again, although the catarrh lasted for six months.

A similar case is reported of an adult male, in which the attacks were so severe that it became necessary for the patient to remain with a surgical clinic, lest tracheotomy might at any moment be needed to save his life.

Both of these were considered to be unusual cases of whooping-cough.

The third case reported arose as a traumatic neurosis. The man slept in a room with a smoking grate, and as a consequence was attacked with acute laryngitis, accompanied by glottic spasm. The laryngitis soon passed away, but the attacks of suffocation, occurring several times a day, continued for over a year. They were accompanied by loss of consciousness, cyanosis, dilated pupils and slow pulse. Any mental excitement might induce the attack. Pressure upon the larynx would arrest it.

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**Cecostomy and Coloclysis.**

C. A. L. Reed, Cincinnati (*Journal A. M. A.*, May 22), describes a method of treatment he has been using for some time in certain cases of peritonitis and some other conditions, as follows: Recognizing the general peritonitis as always a result of infection, he places the patient in the Trendelenburg posi-

tion and operates in the usual way to find, and if possible, to remove the source of infection. Whatever may be the details of that operation, he brings up the cecum and fixes it in an incision directly over its situs, then opens the loop thus anchored and cuts the opening; he then inserts a soft rubber catheter and fixes it by sutures to the abdominal wall. He then puts a self-retaining effluent tube into the rectum. Through the cecal tube he then treats the colon as the conditions may require. Under this last heading he first mentions the treatment of general peritonitis *in extremis*, that is with a subnormal temperature, uncountable pulse, and extreme distention. The first thing, of course, is to lessen the distention. Then immediately after the operation, or as soon as possible, he begins continuous irrigation of the colon with normal salt solution at 110 F. About three quarts are retained before the effluent current is established through the rectal tube. This internal application of heat directly to the solar plexus and by the absorption of water incidentally by the colon generally secures a reaction with remarkable promptness. As soon as this occurs, the free flow from the irrigator is stopped and the drop by drop clysis is substituted and continued for the next twenty-four hours or more. If the stomach is rebellious the cecal tube is used for feeding. Other uses of this treatment are in acute gastric ulcer when it is desirable to keep the stomach at rest for a while before operating, after gastro-enterostomy, cases of malignant disease of the stomach or of the upper segment of the intestinal tract where operation is not practicable. He has already reported elsewhere on its utility in certain cases of intra-intestinal disease requiring direct medication. The treatment is simple and safe and its restorative action is beyond question. A complete control over the colon facilitates the elimination of toxins. In conclusion he urges that cecostomy be adopted rather than appendicostomy. As compared with the presenting part of the cecum the cecoappendiceal juncture is an inch farther from the abdominal wall and there is the possibility of dangerous tension. The distensive pressure of a tube inserted and kept in the narrow appendix causes it to perish during the first few days after operating and thus an appendicostomy always eventually becomes a cecostomy. It is better, therefore, to make it a cecostomy at once.

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Small reddish spots interspersed over the tonsils, uvula and anterior pillars, with no signs of inflammation, are usually herpetic.—*American Journal of Surgery.*

**Ready and Effective Sterilization of the Skin Surface, applicable to Emergency Work.** By Augustin H. Goelet, M.D., New York.

The usual elaborate and profuse scrubbing and disinfection of the skin surface preparatory for operation are very unnecessary and often unwise, even when the peritoneal cavity is to be invaded. A simple and perfectly effective method is to wash the surface carefully (after shaving) with soap and water, using a piece of folded gauze rather than the usual brush. Then dry the surface and apply tincture of iodine to the whole area by means of a pledget of cotton twisted around an applicator. When this is dry the operation may be proceeded with, or, if preferred, the iodine may be washed off with alcohol. The depression of the umbilicus should be filled with iodine in preparing the abdomen for incision.

For emergency work when for any reason previous washing of the surface is not convenient, the tincture of iodine may be applied to the surface, and even poured into a fresh wound to cleanse it, and the operation begun without further preparation.

For effective sterilization of the genitals preparatory to operation, the same method may be employed if used after the patient has been anesthetized. The pudendum is shaved and washed with soap and water, using a piece of gauze. The vagina is washed out in the same manner, using a pledget of gauze or cotton around the finger or in the grasp of a sponge-holder forceps. Tincture of iodine is then applied to the vulva and whole surface of the vagina, including the cervix and its canal. It is then removed from the sensitive surface at the vulva orifice when dry by means of alcohol, or sterile vaseline or cold cream is applied.

When the operation upon the genitals is to be done without general anesthesia, the surface may be irrigated freely (after washing) with a solution of iodine in water, using a teaspoonful of the tincture to a quart or a pint of water. If smarting is complained of, sterile vaseline or cold cream is applied. The tincture of iodine may be applied undiluted to the vaginal surface within the vulva without causing discomfort, provided the vagina is kept distended until it is dry, and the iodine is not permitted to come into contact with the sensitive surface at the entrance.

This method of sterilizing the skin is particularly adapted for work on the negro race.

Iodine is the most reliable and the most harmless of anti-



septics. I have used it exclusively for the past eight years in all of my surgical work and under all conditions when an antiseptic was required, and I have never had any reason to regret it. During that time I have not used bichloride of mercury in any form. I have used a one per cent. solution of iodine for sponging the field during the operation, and for flushing the wound preparatory to closing it, and my results have been notably better than before I began using it. I never use anything else for sterilizing the hands.

In alcoholic solution iodine penetrates every crevice, and its destructive influence upon all forms of bacteria is instantaneous in the strength of the tincture. A one per cent. watery solution will destroy bacteria in thirty seconds or less.

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**Jaundice Without Bile Pigments in the Urine.**—Dr. Hayem in *The Hospital*, April 3, 1909.

A peculiar form of jaundice, characterized by yellow coloration of the integuments without any obvious elimination of bile pigments in the urine, notwithstanding the presence in the blood of pigment that gives Gmelin's reaction, was first described by the author in 1897. If it were not that the blood gives the nitric-acid test for bile pigments it might be thought that the yellow color of these patients is due to something different to bile pigments—in short, that there is only apparent and not real jaundice. Be this as it may, the fact remains that patients come under observation from time to time, apparently mildly jaundiced in the ordinary way, and yet without demonstrable bile pigments in the urine.

The general characters of all the author's cases have been very similar. It has been a question of subicterus rather than of deep jaundice. The coloration of the integuments is usually a little different to the ordinary yellow, recalling rather that which has sometimes been termed xanthochromasia. In at least one case, however, the skin color was indistinguishable from that of mild jaundice, and there was no particular restriction of the color as regards its distribution. The urine not only does not give the ordinary tests for bile pigments, but it may actually be precisely the color of healthy urine. In one of the author's cases there was a little urobilin, but this is found in other conditions besides jaundice.

The yellow coloration develops slowly and insidiously. Once established it persists though it may appear to wax and wane.

It is a chronic persistent "jaundice," mild in degree, sometimes more marked, sometimes less, yet always without bile pigments in the urine. Sometimes the liver is just palpable, smooth even, not hard and not painful or tender to pressure. There is usually nothing to indicate gall-bladder trouble. The spleen is not enlarged. The feces retain their normal color.

Men seem to be affected more commonly than women. Whether alcoholism has anything to do with it is difficult to say. Most of the patients are dyspeptic, and they often present symptoms of actual gastritis. They are also apt to be of nervous temperament, with predominance of neurasthenic phenomena such as inaptitude at work, ready fatigue, tendencies to gloominess, irritability, and loss of weight. In view of the dyspeptic symptoms, it seems not unlikely that the icteric tint is due to secondary infection of the biliary passages from duodenitis, which so often accompanies gastritis, and the pancreatic ducts may possibly be affected in the same way.

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### **The Employment of the Salicylates in Rheumatism.**

As with quinine in malarial infection, so with the salicylates in rheumatism; failure in treatment will often ensue if the technique of their administration is faulty. There can be no doubt that in many instances the dose of the salicylates given in cases of acute articular rheumatism is entirely inadequate. Not infrequently adults receive not more than forty or fifty grains of salicylate of sodium in twenty-four hours for many days without material improvement and with the result that the stomach is considerably impaired in its function, when the use of a comparatively few doses much larger than these would have resulted in prompt recovery. Our English brethren understand this phase of the use of the salicylates better than we do, perhaps because they meet with the disease more frequently. It is our own custom to give from 100 to 150 grains of salicylate of strontium in each twenty-four hours for the first four or five days, administering simultaneously an equal or greater quantity of bicarbonate of sodium. With these the patient receives copious draughts of pure water to flush the kidneys and to dilute the medicine in the stomach. These doses seldom cause difficulty with the digestion, and should the cerebral symptoms become annoying they can be in large part controlled by the use of the bromides, care being taken, of course, that the bowels are kept freely moving without the patient being purged to such an extent as to weaken him.—*The Therapeutic Gazette.*

**Diuretin in Stenocardia.**—Dr. von Noorden, *Med. Klinik*, 1908.

The author remarks on the excellent action of diuretin in stenocardia. Diuretin is to be taken three times a day in doses of 0.5 to 0.6 gm.; larger doses are unnecessary, and are, perhaps, even less effective. Diuretin and its allied combinations possess a definite vasodilator influence on certain vascular areas. This can be easily demonstrated in the case of the kidney. The small vessels of the heart are probably affected in the same way. This results in a diminished resistance and improved circulation, which account for the good effects in stenocardia. Improvement sets in after two or three days, and the difference is so marked that these must be ascribed to the action of diuretin in stenocardia. Diuretin should be persevered with for at least two or three weeks, but if a longer administration seems necessary, there is nothing to stand in the way. The small amounts are well borne by the stomach. The author has never witnessed any bad effects from long-continued administration of diuretin.

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**Endocarditis in Infancy.** Lempp (*Monatsschrift für Kinderheilkunde*).

Upon the basis of seven clinical observations with six autopsy protocols, the author describes the symptomatology of infantile endocarditis, a condition which is rarely recognized in the lifetime of the patient. With special reference to the etiology, these cases concern so-called idiopathic endocarditis, in contradistinction to the usually rheumatic endocarditis of older children. The avenues of entrance of the infection are the skin (eczema, intertrigo) and the mucous membranes of the mouth, pharynx, nose, etc. The most common pathogenic agent is the staphylococcus, more rarely the streptococcus. Other important etiological factors are represented by bronchitis, pneumonia, influenza, tuberculosis, sepsis and pyemia. The inflammatory process is localized at the valves of the left heart in the majority of the cases.

As regards the symptomatology, the local phenomena at the heart are very inconsiderable. Murmurs could not be demonstrated in any instance; a distinct increase of the heart dullness was present in only two of the cases. A far greater importance is attached to the much more constant and often very early signs of circulatory weakness (lividity of the complexion; coolness and cyanosis of the face and the extremities; striking variations in the color; distended veins of the head and neck;



accelerated and irregular pulse). Even more characteristic are the practically constant attacks of cyanosis, consisting in sudden deep cyanosis of one or two minutes' duration, followed by extreme pallor and general relaxation. The most noteworthy feature is the acceleration of breathing, sometimes present to an extreme degree, without objective findings in the heart and lungs. The fever is atypical, markedly intermittent in character, and often entirely absent. Swelling of the liver and spleen can almost invariably be demonstrated. The prognosis is gloomy, for treatment is practically powerless. Stimulants may be given, such as caffeine, benzoic acid or camphor, also collargol.—*Medical Review of Reviews.*

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### The Diagnosis and Treatment of So-called Cerebral Hernias.

Schapiro (*Russian Archiv. f. Chir.*).

The patient was a boy eight years of age, who presented a congenital tumor, very small at birth, now of the size of an orange, on the bridge of the nose, between the angles of the lids. The swelling measured 4 cm. in width and 3 cm. in height. The skin above it was normal and somewhat moveable. The tumor did not fluctuate, and could be moved a little to one side. There were no symptoms on the part of the brain as the result of compression. The physical and mental condition of the child was otherwise normal. The treatment consisted in operation, the tumor being exposed by a longitudinal incision as far as the smooth margin of the bony defect, which was completely filled by the peduncle of the growth. This peduncle was divided without ligature at the level of the bone, and the hemorrhage was controlled with the thermo-cautery. The approximately circular defect in the bone, about  $2\frac{1}{2}$  cm. in diameter, was covered with a periosteum and bone plate, the periosteum turned to the inside, of  $1\frac{1}{2}$  mm. in thickness. The wound healed by first intention. Microscopically, the solid tumor was found to consist principally of fibroid tissue, in which were scattered embryonic muscle tissue, lymphoid cells and large nuclei without protoplasm.

The second patient, a girl of 12 years of age, otherwise perfectly healthy, presented in the middle of the forehead, 3 cm. above the root of the nose, a tumor 2 cm. in width,  $1\frac{1}{2}$ -2 cm. in height, which was covered with thin, bluish skin. It did not pulsate when the patient was at rest, but crying resulted in pulsation and increased tension. Compression did not give rise to manifestations on the part of the brain. A bony margin

could be distinctly felt in the circumference. The operation showed the tumor to be an angioma, the vessels of which communicated with the diploe of the frontal bone, and which had crowded the bone in such a way as to give rise to a fossa about  $1\frac{1}{2}$  mm. in depth, which was covered with bone plates, as in the first instance.—*Medical Review of Reviews*.

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### The Cancer Problem.

That cancer is very prevalent and the cause of a large percentage of deaths in America is beyond question. Under this term (cancer) all kinds of malignant tumors are included—improperly it is true—but that phase of the question is merely academic. It has only been within recent years that the so-called cancer problem has presented itself to the scientific world in its truly serious aspects. That malignant tumors are rivals of tuberculosis and pneumonia as a cause of death and that they are on the increase is apparently true. Yet the fact that the scientific investigation of these diseases has been systematically undertaken only comparatively recently, may possibly have led us to somewhat erroneous conclusions. New York was the first state in this country to establish an institution for experimental cancer research; other states have followed in the work, and these with the activity of European investigators have certainly given promise of some positive results. As yet we have only reached the threshold of knowledge. Statistics presented by Dr. H. R. Gaylord, of the New York Cancer Laboratory, at Buffalo, asserts that the increase in the disease in the State of New York is little short of appalling. The average death rate per 100,000 population for 1906, 1907, 1908, taken collectively, is 76, showing an increase in thirteen years, from 1896, to 1909, of 28.8 per cent. The average death rate per 100,000 for 1896, 1907, and 1908, for tuberculosis, is 169, showing a decrease in the last thirteen years of 9.1 per cent. We well understand why tuberculosis is decreasing. It is the result of our knowledge of the infectious character of the disease and of the new, well-organized warfare which is being opposed to it. Our knowledge of the nature of the cancer as a disease is in its infancy but it is rapidly advancing and the outlook to-day offers a very bright hope that in the future we shall understand and combat the disease by methods based on the present experimental research.—*Editorial, Charlotte Medical Journal*.

**Physiologic Therapeutics.**

By the term physiologic therapeutics nowadays one understands it to mean that part of the treatment of disease which is conducted without the aid of drugs or surgery. The importance of this class of remedies has never been properly insisted upon in medical colleges and the success of many "irregular" practitioners has been due not a little to the neglect of this branch of therapeutics by the medical profession.

Yet in many instances, perhaps in a majority of cases, the physiologic remedies prescribed by the physician are of much greater importance than the drugs. For instance, when a patient with an uncompensated heart lesion is advised to stay in bed and take digitalis, it is usually true that the rest is far more potent for recovery than the drug. When a child with chorea is taken from school and given arsenic, the rest is again of much more importance than the drug. The baths are of much greater importance in the average case of typhoid fever than the medicines. These instances may be easily multiplied.

There are many other procedures, however, neglected by many of the profession, almost equally efficacious and but little more difficult of application. Properly prescribed diets, for example, are really few. A diet for a particular case should be definite and should be insisted upon. Carbonic acid gas baths, the Nauheim treatment, are of undoubted value in many cases of valvular and myocardial insufficiency. They can be given in any glazed bath tub.

Electricity is a highly useful therapeutic auxiliary. The fact that many enthusiasts use it when other measures would be better is no reason why its real usefulness should be neglected. Scientific hydro-therapy as practiced by Winternitz and Baruch is another sadly neglected branch of therapeutics as is massage. The use of breathing exercises and definite calisthenics for narrow chested patients should be prescribed by the physician.

We have heard a great deal of late concerning mental therapeutics. As a matter of fact there probably never was a really successful family physician who was not consciously or unconsciously an expert in the use of suggestive therapeutics. Yet we are now learning that much more could be done with this force than most of us have attempted.

The conclusion one must reach is that much more attention should be paid to these forms of therapeutics in medical schools. Students should have definite instruction and practice in prescribing these treatments.—*Detroit Medical Journal*.



## Miscellaneous.

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### **Bibliographic Treatise on the Antitoxic Properties of Renal Serum and its Application to the Cure of Uremia.**

It was in 1898 that, for the first time in France, Professor Tiessier, of Lyons, conceived the idea of combating the autotoxic effects of uremia by the subcutaneous injection of blood serum extracted by aseptic bleeding of the renal vein of a goat.

Such a practice, inspired as it was by the teachings of Brown-Sequard, with respect to the internal glandular secretions and by the fine experimental researches made by Vitzou, of Bucharest, was perfectly rational. Furthermore, the first clinical applications made by Tabure, of Bucharest, with the aid of the defibrinated blood taken from the renal vein of a dog, as also the trials made by the Hotel-Dieu, in Lyons, with the blood of a goat, were in the highest degree encouraging.

These curious facts, well studied, repeated and popularized by important theses, especially by those of De Lignerolles (Lyons, 1898), and of Lawis (1905, Lyons), were, however, but slightly disseminated at that time. The difficulty of obtaining serum well prepared, the lack of technical knowledge as to its use, and the limited number of observations made on its effects—all these retarded their diffusion to any great extent, and it is only as the result of new researches made by Prof. Tiessier at the Medical Clinic in the Hotel-Dieu, at Lyons, that the renal serum therapy entered on a course of practical application and became a recognized system of practice productive of beneficial results.

These are the last facts that were communicated to the Academy of Medicine at its session of Oct. 7, 1908.

Having been aided in its clinical and experimental researches by Dr. Lucien Thevenot, and being in possession of a serum most carefully prepared by the Bacteriological Institute of Lyons and of the South-East, under the direction of Professors Arloing and J. Courmont, M. Tiessier has been enabled to test this method of treatment under conditions specially favorable for technical observation, and not only to study minutely the biological properties of the renal serum, its antitoxic value and its physiological activity, but also to apply it in a number of cases of uremic intoxication sufficiently numerous to enable him to watch its practical effects and to judge of the right condition in which it is to be applied.

The study of this method is far from being complete; ex-

perimental researches and clinical studies are still being pursued regularly, for the influence of sero-therapy in the treatment so called, of chronic nephritis is not yet well established; it is even quite probable that the effects of sero-therapy (which by their nature are quite ephemeral (would have but a limited restraint upon the evolution of Bright's disease when it is already pronounced. There are also cases of renal degeneration (amyloid degeneration, for example) in which there is no favorable result to be hoped for.

On the other hand, it has already been established that sero-therapy has a *rapidly efficacious action* on the course of infectious nephritis, and that it can stop, in a manner sometimes surprising, acute attacks of uremia through renal insufficiency, acute or subacute.

Furthermore, in the course of chronic nephritis (interstitial or gouty nephritis principally), when an unforeseen accident (a passing renal congestion or intercurrent infection) has suddenly suppressed the functional activity of the parts of the parenchyma still sound, and thus put the patient in immediate danger of uremia, sero-therapy has rendered valuable service.

Upon this point there can no longer be any doubt; the observations, already numerous, that have been gathered upon it in France and abroad (see recent reports of Van Boggaert, of Antwerp, in *Le Scalpel*, Liege, Dec., 1908) are conclusive proofs, are followed by a return of the diuresis, the cessation of attacks of auto-intoxication, the disappearance of nervous troubles, and the progressive attenuation, even to the point of disappearance of the albuminuria.

Without insisting on the essential-mechanism of the effects thus produced, it seems rational to admit, alongside of the certain antitoxic action of renal serum, a stimulating action on the liver, capable of provoking energetically the defensive action of this organ, with respect to the poisons returned in its organism. This reaction of the liver seems to be proved by a frequently enormous elimination of urine, which follows the first serous injections, and this azotising being furthermore independent of every other modification of urinary elimination of other substances dissolved, is a consideration that has led the investigators to believe that distinct service may be rendered by his treatment, both for the cure of nephritis, and for combating and preventing severe attacks of eclampsia.

This very interesting question is at present under study, and in view of the absolute harmlessness of the seric injections and the absence of all risk in making them, all attempts thus far are absolutely legitimate.

**Summer-time is Sprain-time.**

Some wit has said that "Summer-time is Sprain-time." Golf, tennis, baseball and the other outdoor sports inaugurate a season of sprains and wrenches, and ankles, knees, wrists, elbows, shoulders, and backs pay the penalty of a missed drive, an overhand smash or a slide to base. The resultant conditions, the stretching or tearing of ligaments, contusion of the synovial membrane and damage to vessels and nerves, are best remedied by the use of Antiphlogistine, which markedly aids in the reconstruction of the injured part.

By removing the products of inflammation, through the absorption of the liquid exudate from the swollen tissues, and by permitting free circulation of blood through the seat of the injury, Antiphlogistine acts as Nature's first assistant. The affected cells are stimulated and toned up thorough endosmosis, and the process of repair is greatly hastened.

Antiphlogistine should always be applied directly to the affected area as hot as can be comfortably borne, and covered with absorbent cotton and a bandage.

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**Post-Grippal Complications,**

If there is one particular feature which characterizes the genuine influenzal attack, it is the decided and sometimes intense prostration that remains after the subsidence of the acute symptoms of the disease. This general vital "set-back" is oftentimes entirely out of proportion to the severity of the original grippal attack, and the most robust patients are sometimes the most severely prostrated. In addition to the general devitalization, La Grippe is extremely likely to be accompanied with or followed by such troublesome complications as otitis, neuritis, sinus inflammation, gastro-intestinal derangements, resistant and obstinate bronchial catarrhs and, more dangerous than all, a peculiar, more or less characteristic, asthenic form of lobular pneumonia. The skill of the physician and the vital resistance of the patient are often taxed to the utmost in a combined effort to induce final recovery. Anemia, to some degree, is almost always brought about by the combined devitalizing power of the disease and its complications, and convalescence is likely to be tardy and tedious. An easily borne, readily assimilable hematinic does much to hasten recovery and Pepto-Mangan (Gude) is an especially eligible method of introducing the much needed ferric and manganic elements, without producing or increasing digestive difficulty. In no condition does this well tried hematic remedy evidence its undoubted reconstructive power more certainly than in the treatment of post-grippal convalescence.



### Functional Neurotic Disorders.

The various vital functions of the organism are so intimately associated and correlated that it is impossible to definitely attribute any chronic nervous illness to disease or derangement of *but one* of the great bodily systems, *i.e.*, circulatory, respiratory, digestive, lymphatic or nervous. The many neurotic conditions which the physician is so frequently called upon to treat cannot be successfully attacked by confining treatment to the nervous system exclusively, any more than can the cutaneous affections—acne, eczema, or urticaria, be permanently relieved by lotions, washes and unguents alone. Neurasthenia, Nervous "Break-down," Nervous Prostration, "Brain-fag," and allied states are usually but neurotic manifestations of some constitutional metabolic fault, which must be sought out and remedied if intelligent therapy is to be applied. Among the various pathologic conditions which oppose the relief of neural disorders, anemia, whether primary or secondary, is always worthy of therapeutic attention. Unless the blood supply is relatively normal in both quantity and integrity, its oxygen-carrying capacity is "below par," and, consequently, metabolic exchange and interchange is embarrassed and the necessary improvement in bodily nutrition is difficult of accomplishment. Pepto-Mangan (Gude) stimulates and encourages oxygenation and nutrition, by furnishing the more or less impoverished blood with an immediately appropriable form of its vital metallic elements, iron and manganese. The vital stimulus thus imparted is often the one thing needful to initiate the substantial systemic "building up" process which must precede the desired recovery from neurotic disorders.

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### Catheterization.

Cystitis has been found so often to follow not only a foul catheter, but careless catheterism, that it is important to employ the most careful asepsis in the preparation of the patient, instruments and the operator's hands. And if the patient should essay to catheterize himself the above precautions should be enjoined upon him. After catheterization it is well to instill a few drops of a 1-1,000 solution of silver nitrate to the trigonum and throughout the urethra, and to administer by mouth sanmetto in teaspoonful doses, in a half wine-glass of warm water every two hours.

**Feeding in Gastro-Intestinal Disturbances of Infants.**

In gastro-intestinal disturbances of infants it is usual for the profession to employ barley water, milk whey or rice water, and this often meets with excellent results, but leaves the child, as a rule, emaciated and debilitated, due to the fact that it has not supplied adequate nutrition. When the vomiting is incessant, it is much wiser not to attempt to give milk or any of the prepared milk foods, but let the child take from five to ten drops of Bovinine in sterile water every half hour to every hour.

In the dyspeptic diarrheas of infants, practically the whole treatment is a matter of artificial feeding, and there is no subject in medicine on which it is more difficult to lay down satisfactory rules.

The administration of modified milk has revolutionized the artificial feeding of infants, and clinical experimentation has proved that the addition of Bovinine to each feeding makes it an ideal food.

In the dyspeptic diarrheas it is best, as a rule, to withhold the milk entirely and to feed the child for a time at least on barley water, or rice water, to which add the Bovinine in proper proportion, suited to the child's age. The child will usually take this freely, and it is both stimulating and nourishing. It is usually remarkable with what rapidity a child which has been fed on artificial food and milk, will pick up and improve on this Bovinine and barley water or rice water diet. There is no form of nourishment so readily assimilated and apt to cause so little disturbance as Bovinine.

The child should be fed every two hours, and in the intervals sterile water may be given freely. It cannot be expected that, with the digestion seriously impaired, as much food can be given as in a healthy condition, and in many instances we see the diarrhea aggravated by persistent feeding with the milk or milk foods. When the child's stomach is quieted and the diarrhea checked, there may be a gradual return to the modified milk and Bovinine.

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**Awful Results of the Directoire Gown.**

Jenks—Did you hear about Mr. Wood and old man Stone?

Jones—No.

Jenks—They met a lady wearing one of those Directoires, and first Wood turned to Stone and then Stone turned to Wood and both turned to rubber.—*The Doctor.*

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## Original Communications.

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### THE DIAGNOSIS OF LUNG TUMORS.\*

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BY I. ADLER, M.D., NEW YORK.

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"The clinical history of malignant neoplasm of the lungs is still enveloped in much obscurity. The classical descriptions in the text-books are, in the majority of cases, far from corresponding to the reality." Thus wrote Spillman and Haushalter<sup>1</sup> in 1891, and their words are still in the main true, though undoubted advances have been made in diagnostic methods, and much has been added since that time to our clinical and pathological knowledge. It is much to be regretted that primary malignant tumors of bronchi and lungs are generally considered so extremely rare that they do not enter into the everyday working consciousness of the physician. In obscure and doubtful cases every other possibility is usually thought of except tumor, and most frequently the ever-convenient and ready-to-hand diagnosis of tuberculosis must do duty in these cases. If, however, the physician is more scrupulously discriminating, and his mind not so easily set at rest by superficial routine diagnosis, he is apt to get into that condition so graphically pictured by Graves. Graves, in his fascinating clinical lectures<sup>2</sup>, reports a case of malignant disease of the lung, probably a sarcoma, in which he gives a minute analysis of the clinical symptoms, and shows how both he and Stokes were misled. He candidly confesses that he should have made the diagnosis during life, but adds in his characteristic manner: "I became quite tired of the difficulty of attempting to explain the phenomena observed, and gave up all further attempts at diagnosis."

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Primary malignant disease of the lungs is by no means so rare as is generally believed. It is true that the old aphorism, according to which those organs which are most frequently invaded by secondary tumors are rarely the seat of primary growths, is valid also to a certain extent for the lungs, but it is quite safe to say that primary carcinoma of the lungs is more frequent than, for instance, primary cancer of the liver. Statistical data are as yet very insufficient and unsatisfactory. This need cause no surprise, if the peculiar difficulties of the subject be remembered. Hanseemann points out that, of 700 cases of carcinoma that came to the autopsy table in his hospital, the majority having been under the care of the best physicians of Berlin, 156 were not diagnosticated—not even as tumor—during life. Of these, 16 were primary in the lungs and bronchi<sup>3</sup>. On the other hand, 58 were diagnosed as cancer during life, and not corroborated post-mortem. This fact, a sharp reproach to our diagnostics, would not, however, affect the final statistical figures if every case were examined after death, but unfortunately the great majority of cases do not come to autopsy, and as regards lung tumors, what Boyd wrote more than twenty years ago is still strictly true. He says: “A case of malignant deposit in the bronchial glands, infiltrating the lung, ending in ulceration and in the formation of cavities, is frequently set down as one of hopeless phthisis, a post-mortem of which would be of no interest, and all record of the frequency of the disease is in consequence entirely lost.”<sup>4</sup> Even the post-mortem examination, however, does not always bring to light the real nature of the case. There are lung tumors which are not recognized as such in the gross specimen, which are put down as chronic, interstitial or fibrous pneumonia, and which only after a careful microscopic examination, often to the great surprise of the pathologist, are found to be genuine carcinoma. Notwithstanding these difficulties, however, the percentage of primary malignant growths in lungs and bronchi, as reported from the various pathological laboratories, is found to be increasing from year to year, not because the disease itself is becoming more frequent, but rather because more attention is paid to the subject, and more thorough examinations are made. As the general practitioner becomes more familiar with this form of disease, and as our diagnostic methods become more perfect, this percentage will, no doubt, become still larger. Roughly, it may be stated that up to date, carcinoma of lungs and bronchi is found in numbers varying from 1 per cent. to 5 per cent. of all cancer cases, and from .2 per cent. to .6 per cent. of all autopsies. Sarcoma is very much rarer, and is not in-

cluded in these figures, which, it may be repeated, are averages and apply merely to the figures of a number of large German pathological laboratories. In the last 15 years since my attention was first called to this form of disease, I have seen about 18 cases, all except one diagnosed during life, and with a few exceptions, corroborated by autopsy after death. It may be inferred from this that primary malignant disease of the lung, while it must undoubtedly be classed among the rarer diseases, is not so very rare but that every physician in a fairly large practice may, and probably does, meet with it from time to time. Carcinoma is by far the most frequent, and all the various forms, including under this heading also the so-called endothelioma, are represented. Sarcoma is very much rarer, as compared with carcinoma. I have not seen an undoubted and genuine case.

The great majority of all pulmonary cancers are bronchial, beginning either in the main bronchus, perhaps a little more frequently in the right one, or in one or the other of the secondary bronchi, sometimes in those of the lower order. The growth starts at some point of the mucous membrane or the submucosa, proliferates into the lumen, which is gradually filled up, the bronchus becoming more or less completely obstructed. Coincident with this is growth in the other direction, the bronchial wall is destroyed, the neoplasm penetrates into the peribronchial tissue, and, proliferating along the bronchial ramifications, produces more or less extensive infiltration in the lung, so that not infrequently the greater portion of an entire lobe is occupied by tumor. In the neighborhood of this primary tumor, secondary nodules may appear, which again may merge into larger masses; at the same time the lymph nodes at the hilus become involved, the mediastinum is filled with neoplasm, the large vessels, the nerves, especially the pneumogastric, the trachea and esophagus are surrounded, compressed and involved in the tumor formation. The growth may extend directly to the pericardium, and through this or through the large vessels to the heart. The obstruction of one or more of the larger bronchi leads to bronchiectatic dilatations; these become filled with abundant bronchial secretion, and very frequently infection and the formation of bronchiectatic abscesses follow. The tumor itself is apt to degenerate and break down, ragged cavities being formed in it, filled with detritus or sanious puriform material. Compression or thrombosis of larger branches of the pulmonary vessels may lead to more or less extensive gangrene. Secondary infection in the engorged and more or less morbid lung tissue not directly involved in the new growth, often causes areas of pneumonic consolidation,



At a comparatively early stage the pleura may participate in the morbid process, adhesions, pleural thickening and effusions following. Through the pleura the growth may penetrate to the chest wall, some ribs being eroded and partially destroyed, the muscles of the chest infiltrated, and the tumor finally appearing under the skin. Then come the metastases. As a rule, sarcoma has less tendency to generalization than carcinoma. Some authors have asserted that pulmonary carcinoma has little tendency to the formation of secondary deposits, but this is a generalization that does not quite correspond with the facts. It is true that cases of quite extensive pulmonary carcinoma have been reported without any metastases, others with but few and insignificant secondary deposits; but in a very large number of cases, especially in cases of carcinoma of the medullary type, numerous metastases are formed, sometimes in almost incredible numbers, throughout the entire body. The other lung, lymph nodes—supra and infraclavicular, axillary, retroperitoneal—brain bones, all the abdominal viscera; in short, there is not an organ or tissue of the body but may become involved. A large uterine fibroid has been found to contain, deep in its interior, a secondary nodule, as have also the tip of the nose as well as the little finger. Death finally ensues from exhaustion, from sudden and profuse hemoptysis, from secondary growth invading some vital spot, as in the brain or heart, or from suffocation, the latter the most horrible death that one may imagine.

Not every case, however, runs the full course here roughly sketched. In many death brings relief before the picture is completed; in others, where the cancer is not so malignant, the course is more chronic and less destructive, so that all sorts of gradations in the anatomical as well as in the clinical picture are observed. The rare cases in which the carcinoma does not begin in a bronchus, but takes its origin directly from the alveolar epithelium, are, as a rule, much less extensive and infinitely less malignant than the bronchial type. Here the clinical symptoms most frequently suggest forms of chronic pneumonic consolidation. They are, as a rule, not diagnosed during life, and even at autopsy are not recognized as tumor without the aid of the microscope. Sarcoma of the lung may, in clinical symptoms, entirely resemble bronchial carcinoma, especially with reference to its involvement of the mediastinum and the various organs at the root of the lung. It is even claimed by some authors that certain forms of sarcoma have a marked tendency to an early and very massive involvement of the mediastinal lymph nodes, a point which may be useful in differentiating between sarcoma



and carcinoma. Not infrequently, however, sarcoma forms huge solid tumors, replacing an entire lobe, or even an entire lung, and completely filling the pleural cavity. Carcinoma never produces such tumors.

This brief sketch may suffice to indicate the possible complexities of the clinical picture and the diagnostic difficulties that may present themselves, as it is evident that the subjective symptoms, as well as the physical signs, may vary within a wide range of possibilities according to the location and extent of the tumor, and the secondary as well as the direct involvements. Instances are occasionally met with in which there are practically no symptoms whatever. The patients are apparently quite healthy, and nothing points to pulmonary disease, when suddenly and without warning, some secondary growth in the brain, the spinal cord, the liver, the heart, etc., etc., causes grave and usually promptly fatal symptoms. These cases are, however, rare. As a rule there are early signs, often but slight, it is true, but, if taken at their proper value, most significant. Pain in the chest is a very common and frequently a very early symptom. According to Schmidt<sup>5</sup>, the lung tissue proper does not appear to be sensitive to pain, and real pain will, therefore, only be produced when the pleura is involved; hence, in the earlier stages, the chest pain is rarely sharp, but rather a dull, indefinite, unlocalized discomfort. With the further involvement of the pleura, and with the advent of inflammatory processes and effusions, the pain may become very intense and persistent. In accordance with the well-known relations of the pleura to the brachial plexus, the intercostal nerves and the diaphragm, the painful radiation along the shoulder and arm of the side affected, along the intercostal nerves, the costal arch, and in the abdomen is frequently very marked. Shortness of breath on slight exertion is probably one of the most constant, and often, too, one of the very earliest signs, and when heart disease can be excluded, of great diagnostic significance. The higher grades of dyspnea belong to the later stages of the disease, and are always due, not to bronchial obstruction, as is frequently but erroneously maintained, but to compression or obstruction of the trachea. There is nothing, perhaps, in the whole range of human suffering which we physicians have to witness and to combat, so horrible and so hopeless as those extreme cases of orthopnea and suffocation resulting from substernal tracheal compression in the terminal stages of mediastinal or pulmonary tumor. Cough may be a very early, perhaps the earliest symptom, or it may not appear until a late stage of the disease, but it is rarely entirely

absent. A persistent, short, hacking cough, with scant or no expectoration, is very frequently the very first sign, and often occurs long before physical examination of the chest shows any pulmonary lesion. Sometimes, however, it is possible, by very careful auscultation, to hear over one very small area, usually in the back near the spine, in the region corresponding to the hilus of the lung, that peculiar bronchial swish which the French call "cornage," and which points with certainty to an obstruction of a larger bronchus. When this is found in an elderly person in apparently good health, or at any rate without any signs or history of chronic pulmonary disease, it is most suggestive, and should at once arouse suspicion of a developing bronchial carcinoma. As in all other forms of malignant disease, loss of weight and strength are very unreliable and inconstant symptoms. In many cases of pulmonary tumor, they occur at a very early period of the disease, may, in fact, be the very first sign; in others, cachexia does not appear until very late. I have seen several cases in which there was no appreciable emaciation or impairment of strength up to the fatal termination.

The sputum is of the greatest interest and importance. The much discussed prune-juice or black currant jelly sputum is still mentioned in most text-books as pathognomic of malignant disease of the lung. This, however, is not in accordance with the facts. It is far from being a constant sign, and a very great number of cases have been reported where this type of sputum was never seen; it appears, too, that its occurrence is by no means confined to lung tumors. Where other symptoms point towards cancer of the lung, the prune juice expectoration may be accepted as a further corroboration of the diagnosis; its absence has no diagnostic significance. There are cases on record in which from first to last there has been no expectoration whatever; in many others the sputum has been merely mucoid, and not at all characteristic of disease. Where there are bronchiecatic dilatations, the sputum may be muco-purulent, purulent and fetid; again, it may exhibit all the well-known characteristics due to a gangrène of the lung. In the great majority of cases, the sputum at one time or another is bloody; sometimes there is so little of this that only close inquiry will elicit the fact that it has ever been present. Oftentimes the bloody expectoration is very constant during the entire course of the disease; it may be only an occasional pinkish stain, but more often a dark red or blackish tenacious secretion. More or less profuse hemorrhages may occur, and they are not so rare as some authors. Hampeln, for instance, would have us believe. Sometimes, as is so frequently observed in tuberculosis,



a sudden profuse hemorrhage is the very first indication of some lesion in the lungs. These hemorrhages may occur at any stage of the disease, and are not infrequently the cause of its sudden and abrupt termination. One of my cases, a man apparently still far from the fatal ending, died of profuse hemoptoe in a hansom cab on his way to a medical meeting at which I wished to demonstrate him. In some cases of sarcoma of the lung, a peculiar grassy green sputum, without, however, any characteristic microscopic elements, has been observed. It can by no means be considered as pathognomonic, but tends, in conjunction with other symptoms, to strengthen the diagnosis, and may help occasionally to differentiate as between sarcoma and carcinoma. The systematic and thorough bacteriological and histological examination of the sputum is obviously of the greatest importance. The continuous absence of tubercle bacilli in cases where there are signs of consolidation or ulceration in the lung, and where there is a history of hemorrhage or bloody expectoration, should always suggest the probability of malignant disease. But even when tubercle bacilli are found and the association of tubercular disease and primary malignant neoplasm of the lungs is by no means so very rare—it may, under particularly favorable conditions, be possible to recognize the tumor by the aid of a careful study of the sputum. In some very few isolated instances, probably all of them sarcoma, massive pieces of the tumor have been ejected with cough; smaller particles of cancerous tissue, recognizable by the microscope, have also here and there been detected in the expectoration, but these are rather exceptional occurrences. In the overwhelming majority of cases, constant, even daily examinations of the sputa for many months, has failed to detect genuine particles of carcinoma. There remains, therefore, the search for characteristic cells. Among the multitude of epithelial cells that are found in the expectoration—squamous, large and small round or polygonal, cuboid, cylindrical, ciliated, etc., it would seem, *a priori*, quite hopeless to attempt to pick out cancer cells. Attention, however, has been called to certain forms of cells, which, if present, are claimed to be absolutely pathognomonic, so that on the evidence of these cells alone the diagnosis of cancer may be made. Hampeln<sup>6</sup> considers the appearance of certain large polygonal, polymorphous cells in the sputa, characteristic of carcinoma. They are often met with in great abundance; they may assume all sorts of distorted shapes, but never entirely lose their epitheloid character, and—this is the most important point—they are always entirely free from pigmentation, while all other forms of epi-



theloid cells that are found in the sputum are more or less abundantly pigmented. According to Hampeln, they are not constantly present; vain search for them may be made for days, but when they are found, if only one single time, the diagnosis of carcinoma, according to this author, is assured, as these cells occur only in carcinoma, and under no other conditions. Lenhartz<sup>7</sup> claims great diagnostic value for certain rather large round cells filled with very prominent fatty granules (*fettkörnchen kugeln*); these cells, supposed to be derivatives of degenerated cancer cells, are often very abundant and easily demonstrated; or again, but very sparingly distributed in the sputa. They may sometimes disappear temporarily altogether, but are never permanently missed in any genuine case. They are said to occur only in cancer of the lung. Their presence in the sputa clinches the diagnosis, provided only such sputum has been used for examination that is free from any possible contamination with milk. Since our attention was called to these cells we have seen only one case of cancer of the lung, but in the sputa of this case these cells were present in great abundance. We have also examined a great number of sputa from other forms of pulmonary disease with entirely negative results. It seems quite probable that these cells are really pathognomonic for pulmonary cancer, and a further and more extensive study of the subject is desirable.

The physical signs may be comparatively simple or extremely complicated and confusing. In reviewing a very large number of cases a certain monotony in the clinical picture becomes apparent, and a rough arrangement of the clinical material into a few typical groups is suggested. Perhaps the classification proposed by Marfan is the most convenient.

I. Cancer pleuro-pulmonaire aigue ou galopant. The acute or galloping form; extremely rapid course—cough, dyspnea, asphyxia, death in a month or thereabouts. One is led to think of acute miliary pulmonary tuberculosis, and at autopsy both lungs and pleuræ are found studded with cancer nodules (acute miliary carcinosis). This form need not detain us. It is not only extremely rare, merely a very few scattered cases having been reported, but there is reasonable doubt of its primary character when found in the lung. Granted, however, that it does occur as a primary pulmonary lesion, it seems practically impossible to secure a correct ante-mortem diagnosis.

II. Cancer pleuro-pulmonaire chronique. The ordinary chronic form of cancer of the lung. This may again be divided into several subordinate types. It must be remembered, however,

that these groupings are merely for the convenience of the clinician, and do not represent strictly limited and firmly established syndromes. With the progressive development and extent of the lesion, one of the so-called types may gradually merge into another, and it very frequently happens that several or all of the forms here mentioned are exemplified in the course of a single case.

(a) Cancer broncho-pulmonaire, type classique du cancer du poulmon. The typical bronchial cancer, by far the most common form of the disease. The dominant symptoms are referable mainly to the lungs and bronchi. In the earlier stages a simple chronic bronchitis is usually suggested, but even in these earliest periods it will frequently be possible, if not accurately to diagnose, at least to suspect, the graver lesion in its incipieney. The occasionally bloody sputum, the dyspnea on slight exertion, the debility entirely disproportionate to the physical signs, are often enough among the earliest symptoms, and are very suggestive. A close physical examination may detect, even at a very early stage, some slight, gradually extending area of dullness, usually posteriorly and in the region of the root of the lung, or possibly over one or the other apex, with diminished voice and breathing. In the later stages, when extensive areas of dulness have developed, when through degeneration or breaking down of the neoplasm, or through the formation of bronchiectatic dilatations, amphoric breathing, tinkling rales, tympanitic percussion note, and all the other signs of cavity in the lungs appear, when fever, nightsweats and hemorrhages set in, it is not surprising that the diagnosis of tubercular phthisis is so readily made. The case is set down as one of ordinary consumption, until at last the appearance of secondary tumors or the autopsy clear up the error. It is not always easy to differentiate in these later stages, but it can in many instances be done in uncomplicated cases, at least, and with a very high degree of probability. If the growth has invaded the lower lobe there should not be much difficulty, though it need hardly be mentioned that the diagnosis cannot always be made at a single examination, as a longer period of observation and study may be required. The apex, the favorite location of the tubercular process, is usually entirely normal or shows only a few rales. The area of dulness is irregular in extent and location; it may be over some portion of the anterior part of the chest, but more frequently is on the posterior aspect, starting usually from about the hilus, and most intense in that region. It is of especial diagnostic importance that, owing to bronchial obstruction, the breathing sounds and vocal fremitus heard over

these irregular areas of dulness are, as a rule, extremely feeble or entirely absent. This never occurs in tubercular or pneumonic consolidation. Bronchial breathing and increased vocal fremitus appear only when secondary inflammatory consolidation is established in the lung tissue surrounding the neoplasm. There is a certain element of instability in the physical signs which is also quite characteristic. An extensive area of dulness over which hardly any breathing sounds are heard may suddenly, because the cancerous obstruction in the afferent bronchus has partially or entirely sloughed off, and the bronchus thus again become pervious to air, exhibit loud tubular breathing and pectoriloquy. Some time thereafter the former condition is restored, because the bronchus has again become blocked by a new proliferation of the tumor. A bronchiectatic cavity filled with mucus, pus and detritus, because the afferent bronchus is obstructed, does not produce any marked physical signs except perhaps some dulness. In one way or another the bronchial communication is re-opened and at once, within a few hours, we may have all the signs of a larger or smaller cavity. These sudden and surprising changes occur in no other form of pulmonary disease. The continued absence of tubercle bacilli from the sputum, whether bloody or not, speaks against tuberculosis, while the presence of the granular cells of Lenhartz points to tumor. In tuberculosis, fever of a more or less hectic type is the rule at a comparatively early stage of the disease, and it is always present when ulceration and the formation of phthisical cavities have begun. Cancer of the lungs may run its entire course from beginning to end without any rise of temperature. When fever does occur it is usually at a late period and is of quite an irregular type.

The fact that all these manifold lesions, consolidations, cavities, etc., are confined to one lung only, or perhaps even to a portion of one lung, may also serve to distinguish between malignant disease and phthisis. The modern tests for tuberculosis—the ophthalgo-reaction of Wolff-Eisner and Calmette, or perhaps better still, the cutaneous method of von Pirquet, may be of great value and should certainly always be tried in doubtful cases. Inasmuch as these reactions depend upon a tubercular process somewhere in the body, not necessarily in the lungs, a positive outcome will not necessarily exclude tumor, while a negative result would be of great importance as tending strongly to show that the process is not tubercular, and, therefore, going very far towards corroborating the suspicion of tumor. A further and very important diagnostic aid is afforded by X-rays. A bronchial carcinoma starting from the root of the lung, and from there



penetrating into the lower or middle lobe, presents a very characteristic picture on the screen or skiagram, and one quite different from anything that is seen in pulmonary tuberculosis or any other disease of the lung. It may even be possible under favorable conditions to diagnose with a fair amount of accuracy the location and extent of the tumor developing in the interior of the lung while still of comparatively small size and surrounded by healthy tissue, causing as yet but slight clinical symptoms. In order to accomplish this, however, a mental attitude of the physician totally different from what it is at present is required. No conscientious physician to-day examines a chest without thinking of the possibility of tuberculosis. It will not be very wide of the mark to say that hardly anyone ever thinks of the possibility of tumor. If any progress is to be made in the diagnosis and treatment of these unfortunate cases we must train ourselves to think of bronchial or pulmonary cancer, more especially in elderly persons, just as readily, perhaps even more so, than we do of tuberculosis. Cancer originating in the upper lobe is perhaps at first more easily confounded with a tubercular lesion, inasmuch as the apex of the lung is the favorite location for tuberculosis. The differential diagnosis, however, should, with careful observation, offer no real difficulty, provided the case is an uncomplicated one. Now it happens none too rarely, that tuberculosis and carcinoma are associated together in the same individual, that the sputa are crowded with tubercle bacilli, and that all the other typical signs of phthisis are in evidence. In such cases it will probably be only by a rare conjunction of favorable circumstances that the carcinoma can be diagnosed. A small cancer growing from the wall of a tubercular cavity, as has been reported by Friedlander and others, may possibly, perhaps by the presence of granular cells in the sputum, be suspected, but it is hardly ever recognized with any certainty. In some few favorable cases of combined tuberculosis and cancer, the diagnosis has been made during life and corroborated post-mortem. The recent development of bronchoscopy encourages the hope of diagnosing from this quarter. Several cases have been reported in which the cancer obstructing a bronchus has been made directly visible and the diagnosis thus made absolutely certain.

(b) *Form du tumeurs de mediastin.* A bronchial cancer, it is indifferent of what order the bronchus may be, whether large or small, has two main preformed routes of extension at its disposal. The easiest and most natural, and the one that is in the majority of cases first resorted to, is along the bronchial ramifications and the peribronchial tissue into the interior of the lung.

Usually in the later stages, the bronchial wall being broken down and penetrated, the bronchial and mediastinal lymph nodes become involved and sometimes enormously enlarged. The mediastinum, both anterior and posterior, becomes filled with tumor masses, the pericardium is covered or penetrated, the large vessels, both aorta and cavae, and pulmonary arteries and veins, are surrounded and compressed, the superficial veins of the chest are dilated, the laryngeal recurrents are involved, trachea, bronchi and esophagus are compressed and obstructed, and we have all the signs of mediastinal tumor. Sarcoma starting at the hilus of either lung runs a somewhat different course in so far as the tendency of the growth is somewhat less towards involvement of the lung, but tends earlier and more rapidly towards the mediastinum. In a case that presents itself to us at this rather late stage of the process, the differential diagnosis as between primary tumor of the lung or some other intrathoracic growth, or aneurysm, is always extremely difficult and but too frequently impossible. A full discussion of the numerous little diagnostic points that have been suggested as helping in the differentiation is altogether beyond the scope of this brief review, although a few points may be mentioned. In the first place, it must be said that carcinoma of the lung affords slightly better chances of diagnosis than sarcoma. A careful consideration of the history may demonstrate the primary involvement of the lung, and the only secondary participation of the mediastinum. In most cases of primary mediastinal growth there are no clinical symptoms whatsoever until the tumor has attained a certain size, when at once the symptoms of intrathoracic pressure are developed. In pulmonary cancer we will very frequently have the sequence outlined above. The preformed and most convenient route for the further extension of mediastinal growth is along the track of the great vessels, and therefore towards the left; it will, therefore, always be more easy to distinguish a tumor of the right lung from mediastinal tumor than a tumor of the left lung. Edema of the right side of the face, shoulder, arm and chest, paralysis of the right laryngeal recurrent indicates pulmonary tumor. Cropping out of the growth above the jugular notch suggests mediastinal tumor. In pulmonary tumor, the pleuritic effusion, if there is any, is usually confined to one side; effusion into both pleural cavities speaks for mediastinal growth. Jacobson<sup>8</sup> points out the greater respiratory mobility of the lung in cases of mediastinal tumor as compared with the impaired respiratory motion in pulmonary growths. This symptom is particularly well seen by means of the Roentgen rays, though otherwise the X-ray affords but little diagnostic assistance in this type of cases.



The Oliver-Cardarelli symptom, the downward tug of larynx and trachea when the head is slightly thrown back, may be of assistance in the question of aneurysm. Lastly, in carcinoma the characteristic cells in the sputa may settle the otherwise impossible differential diagnosis.

(c) *Form pleuritique.* The pleuritic type. In this form the symptoms referable to the pleura predominate; severe pain in the chest and shoulders and persistent pleuritic effusion often more or less completely mask all symptoms of pulmonary disease. This type also corresponds to a later stage of the disease as far as tumors of the lung and bronchi are concerned. It is the usual and very early form in which primary malignant disease of the pleura presents itself, but which is beyond the scope of the present discussion. The diagnosis is not always easy, and can often be made only after continued observation. Hemorrhagic effusion occurs, as is well known, not only in malignant disease, but often enough in tuberculosis; it may, in very rare cases, even occur in entirely benign forms of pleurisy, as, for instance, in measles. It very frequently happens that the first few aspirations recover only clear yellow serum, sometimes in very large quantities, and that only by later punctures, hemorrhagic, oftentimes thick chocolate-colored fluid, is obtained; this may be taken as characteristic of tumor. I am not aware that it has been observed in any other form of disease. In nearly all cases the effusion is persistent, that is, the chest fills up again and again, and the aspirations have to be repeated at comparatively short intervals until the end. There are, however, rare exceptions. Unverricht<sup>9</sup> reports the case of a woman in whom, after two aspirations of hemorrhagic fluid, all symptoms seemed to disappear; she felt entirely well for a time and gained in weight until secondary tumors appeared in the skin where the aspirating needle had penetrated. The autopsy showed primary bronchial carcinoma. Hampeln reports a similar case. Not much is to be expected from the bacteriological examination of the effusion. The cystological examination, on the other hand, often, though by no means always, gives valuable hints. Single epithelial cells do not possess any significance; the large, edematous and vacuolized cells described by Fraenkel are characteristic of endothelioma of the pleura and need not concern us here, but if conglomerations of a number of epithelial cells are found, and especially if these show a decided glycogen reaction, it goes far to corroborate the diagnosis of tumor. In the ordinary cases of non-malignant effusion there is usually more or less complete relief as soon as the fluid has been evacuated, but in the majority of cases of malignant pulmonary disease this relief does not follow and there is little



or no abatement of the dyspnea, cough, expectoration and general distress. If a paralysis of the recurrent laryngeal is observed on the side of the pleuritic effusion, it may be taken as a sure sign of malignancy. In some few cases the aspirating needle has brought away small particles of tumor directly from the lung which could be sectioned, and from which thus the absolute microscopic diagnosis could be made. Kroenig devised a method based upon this, by which in every doubtful case the attempt was to be made to remove particles of tumor by aspiration. As this method is not without its dangers, and at best not very reliable, it has not found much favor. It would appear much more rational to make a broad incision, as has been done in a number of cases, not only for the sake of diagnosis, but also for the sake of establishing drainage, and thus, if not curing, at least relieving some of the most distressing symptoms.

(d) *Form pleuritique sans épanchement.* The pleuritic type without effusion. This is also a very late stage. There are all the signs of pleuritic effusion—pain, absolutely flat percussion note, complete absence of voice and breathing, respiratory immobility, not infrequently increased circumference of the chest and displacement of the heart, but the exploring needle fails to find fluid. The needle seems to penetrate into a more or less solid mass extending to such a depth as to preclude any possibility of its being merely an abnormally thickened pleura. In these cases, too, the needle frequently brings away particles of tumor. It is characteristic of this type that while there is complete absence of respiratory murmur or vocal fremitus, there is very loud propagation of the heart sounds, so that if the tumor occupies, for instance, the right chest, the heart sounds can be heard very distinctly over the whole of the right chest, both in front and in back. This sign alone is sufficient to assure the diagnosis of a solid tumor. These cases are probably always sarcoma, and their recognition should not present any very great difficulty.

In no other department of clinical medicine does the old precept, “*Opportet omnia signa contemplari*”—“it is necessary that everything should be taken into consideration”—apply with more compelling force than in the diagnosis of lung tumors. There is no single, constantly present pathognomonic symptom. Undoubtedly there are cases where the diagnosis cannot be made at all, where the initial symptoms are so slight that the patient does not have recourse to medical aid, where the physician is consulted at a time when cerebral or abdominal metastases cause symptoms which predominate to such an extent as to exclude all possibility of locating the primary tumor, and any attempt at accurate diagnosis is not only vain but useless. In a great many

cases, however, perhaps in the majority, thorough and repeated examinations, as well as careful weighing and consideration of all symptoms, will render a diagnosis of a fair amount of assurance possible, if not at once, at any rate after a reasonable time of observation. It is well to remember the words of Stokes with which he concludes his classical article on lung tumors: "Though none of the physical signs in this disease are, separately considered, peculiar to it, yet their combination and modes of succession are not seen in any other affection of the lung."

About a hundred years ago, Heyfelder<sup>10</sup>, disgusted with the treatment that these unfortunates were receiving under all sorts of diagnoses—the blood-letting, the purging, the salivation, etc., etc.—urges upon physicians to recognize these cases as cancer and as hopeless, and not to add the torture of medical treatment to the sufferings consequent upon the disease—"Optima hic est medicina medicinam non facere"—"the kindest treatment in these cases is not to treat them at all." Barely five years ago, Benda<sup>11</sup> was still justified in saying that cancer of the lung occupied a unique position, inasmuch as it was the only cancer that was absolutely beyond the reach of the surgeon; but he went a step further and added that, no matter what progress surgery would make, it could never hope to deal satisfactorily with lung cancer, as it would always remain impossible to make the diagnosis early enough for any reasonable expectation of a cure by surgical interference. This is a forcible illustration of how unwise it is to attempt to set limits to the progress of science. Within the few years that have elapsed since Benda made this daring assertion, the outlook has completely changed. Until recently the diagnosis of malignant disease of the lungs meant the death warrant of the patient. The interest attaching to an accurate diagnosis was mainly theoretical and scientific, and it is not to be wondered at that physicians took little interest in forms of disease that offered not the slightest hope of therapeutic success. This has all been suddenly and marvelously changed. The new era of thoracic surgery that is just dawning seems, with the help of the Sauerbruch cabinet, to promise some chance for these cases, until now so hopeless. Already a number of cases have been reported, especially by Lenhartz and Kümmel, which have been operated on by the new method with encouraging results. At least one case (past all help according to all experience) has remained well, up to last reports, for a year after the operation. This new branch of surgery is still in its infancy, but there is every reason to expect with confidence that it will do for the thorax much of what abdominal surgery has done for the peritoneal cavity. If that is so, and we sincerely hope it may be,



then a new and great responsibility is placed upon the shoulders of internal medicine. It is the sacred duty of the physician to recognize these cases and to recognize them as early as possible. The cases are there and they can be found, but in order to find them we must look for them. The physician must be imbued with the consciousness that malignant pulmonary disease occurs much more frequently than is commonly thought, and that he may meet it any day in young or old in his practice. Gerhardt gives sound advice when he bids us suspect of pulmonary cancer every elderly person who has bloody expectoration, and where heart disease and tuberculosis can be excluded. No age, however, is exempt, and our suspicions should at all times be readily aroused. When a study of the sputa, the X-rays, the bronchoscope, and all the other diagnostic means fail to assure the diagnosis, an exploratory thoracotomy would be indicated. I personally would not hesitate even now in this as yet imperfect period of the development of the technic, were there well-founded suspicions of malignancy, to advise an exploratory opening of the chest by means of the new methods, rather than wait until the diagnosis were absolutely certain and the case inoperable.

In conclusion, Mr. President, I may be permitted to thank the officers and members of this Association for the honor conferred upon me in inviting me to read this paper, and for the indulgence with which you have listened to me.

## REFERENCES.

1. Du diagnostic des tumeurs malignes du Poumon. *Gaz. hebdomadaire*, 1891, p. 573 ff.
2. *Clinical Lectures on the Practice of Medicine*. London New Sydenham Society, 1884, 2nd Edition.
3. Reichelmann. Ein Krebs-statistik vom Path. Anatom. Standpunkt. *Berl. Klin. Wochenschrift*, 1902, No. 31132.
4. Cancer of Bronchial Glands and Lung. *Transactions of the Acad. of Med. in Ireland IV.*, 1886, p. 91.
5. Die Schmerz-phenomene bei inneren Krankheiten.
6. Ueber den Auswurf beim Lungencarcinom. *Zeitschr. f. Klin. Med.* Vol. 32, 1897, p. 246.
7. Ebstein and Schwalbe, *Handbuch d. prakt. Med.* 1899.
8. Primaere Lungen und mediastinal. *Festschrift f. Lazarus*, Berlin, 1899. Tumoren.
9. Beitrage zur klin. Geschichte der krebsigen Pleuraerguss. *Zeitschr. f. klin. Med.* Vol. IV., 1882, p. 79, ff.
10. *Studien in Gehiete der Heilwissenschaft*, Vol. I., p. 52.
11. Zur Kenntniss des Pflasterzellen Krebses der Bronchien. *Deutsch. med. Wochenschr.* 1904, p. 1454.



## URICACIDEMIA IN RELATION TO STOMACH TROUBLES.\*

BY W. H. PEPLER, M.D., L.R.C.P., LOND.

"Nothing is perhaps so bewildering in the whole of bio-chemistry as are the various hypotheses regarding the metabolism of the purin bodies." This statement from Leonard Hill's excellent new work entitled "Recent Advances in Physiology and Bio-chemistry," alone prevents the possibility of my burdening you to-day with any lengthy controversy on the many insoluble problems that present themselves when considering the metabolism of uric acid.

It is now generally recognized, however, that uric acid arises in the body from two sources.

(a) Exogeneous uric acid, that from nuclein-proteids and purin bodies present in food:

(b) Endogenous uric acid from the nuclein bodies of the tissues.

The uric acid is formed in most of the organs of the body, principally the liver and spleen, where it is also disintegrated.

Exactly when the presence of uric acid in the blood leaves the physiological state to become a pathological one, is difficult to say, there being always a small amount of it present in the blood in health. Uric acid is 35 times more soluble in the blood than in distilled water, but you require a high alkalinity of the blood to retain it in solution. This is greatly aided by the action of the gastric juice, the hydrochloric acid of which extracts the alkaline phosphates from the food, so that after each meal we get a lessened acidity of, or even an alkaline urine, if hydrochloric acid is present in regular amount. In this way we can roughly gauge the amount of HCl. present in the gastric juice.

Sir W. Roberts says that "one part of sodium biurate in 6,000 of the blood serum constitutes a supersaturation, and precipitation must take place, and irritation and inflammation follow as a result."

An excess of uric acid in the blood may be caused in a variety of ways. The principal ones are:

1. Alterations in diet.
2. Increased destruction of nuclein material in the body.
3. Lessening in the further combustion of the uric acid formed.

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4. Increased washing out of the uric acid stored in the body.
5. Increased uric acid synthesis in the body.

Alteration in diet is generally the most important factor. Foods rich in nuclein matter, as meats, meat extracts, etc., rapidly cause this excess.

There are many individuals who, from various causes, accumulate uric acid in their blood and bodies very readily and rapidly. These people, we say, possess the *uric acid diathesis*; their name is legion, and it is of them and their stomach disorders that I wish to speak in this paper.

How do disorders of the stomach lead to uricacidemia? An imperfect absorption of food leads to a deterioration of the blood and a poor oxidation and incomplete metabolism follows as a result.

Errors of diet that lead to an acid fermentation in the stomach will neutralize the alkalies formed during digestion, and the blood will not be supplied with the salts necessary for entering into combination with the uric acid, and the result is uricacidemia—a retention of uric acid in the blood.

The disorders of the stomach most likely to produce a uricacidemia are chronic asthenic gastritis, with motor insufficiency; cancer, and myasthenia, with lessened secretion. These conditions cause an excessive acidity, and a resulting lessened quantity of neutral phosphates of soda available for holding the uric acid in solution. The converse, however, is sometimes true; a dyspeptic often escapes uricacidemia. "I have been a dyspeptic all my life," said an old clergyman; "thank God for it, all my brothers died of gout." He hadn't been permitted to eat food that caused increase of uric acid.

Uricacidemia is a cause and means of continuance of gastric troubles.

Uric acid is not strongly toxic, yet it is decidedly irritating both when in solution and when precipitated in the tissues. This fact is agreed upon by such authorities as Garrod, Haig, Roberts and Lauder Brunton. The latter designates uric acid as *dirt* when retained in the blood. Uric acid can find its way into the gastric juice, and directly cause disturbance. The constant presence of excess of uric acid in the blood may lead to a thickening and contraction of the pyloric orifice of the stomach, just as it so often does in the knee and other joints. This is followed by a dilatation, gastroptosis, lessened motor power, etc. Haig, in his excellent work on this subject, says that uric acid, when present in the blood in any quantity, takes the nature of a colloid or gluey substance, and that it mechanically obstructs the

circulation in the capillaries, and venous stasis, with increased arterial pressure, results. This blocks the glands and vessels of the stomach, leading to loss of muscular tone and insufficient secretion and motility, with acid fermentation and putrefaction. This condition he calls acid auto-intoxication due to collemia.

Van Valzah and Nesbit, in their work, "Diseases of the Stomach," state that the special gastric trouble which accompanies a uricaemia is myasthenia gastrica, with either a hyper- or hypochlorhydria, plus fermentation. If hypochlorhydria and fermentation are present, you have a vicious circle established, for the secondary gastric trouble favors the retention of uric acid in the blood.

Elbstein and His make the statement that the toxic properties of uric acid directly cause digestive disturbances.

An important and often difficult question to determine is when the stomach trouble has been caused by, or depends upon, a retention of uric acid in the blood. We have often to depend, rather, on the accompanying symptoms than on its own. For instance, we have a history of periodical headaches, of a migraine type; mental depression; irritable temper; drowsiness; scanty, high-colored urine, with many pink urates or crystals of uric acid, and even renal or vesical calculi—perhaps a history of asthma, myalgia, or other rheumatic manifestations. With this history, the patient will complain of considerable eructation, heartburn, epigastric oppression and distention, furred tongue, etc., and it is these gastric symptoms that generally bring him to us. Now we find that this train of symptoms is nearly always relieved or improved by diet and drugs that free the blood of uric acid, and also may be made decidedly worse by the administration of uric acid in any form. With such a history it is strong presumption that collemia is at least one of its causes and continuances.

Very often the gastric phenomena blanket the accompanying more important ones, and to illustrate this I will briefly cite a case in point:—

A lady, 35 years of age, was referred to me in August, 1908. She stated that she had been under treatment for stomach trouble for the last four or five years. Her chief complaints were constant belching of gas, pain in left hypochondrium referred to the back, some oppression and distention of epigastrium, considerable gastropnoea, analysis of gastric contents showed hyperchlorhydria. She had a good appetite throughout. Accompanying these symptoms and signs were marked mental depression.



irritable temper, and analysis of the urine revealed high acidity, concentration, many urates and crystals of uric acid, also pus.

I must confess that my diagnosis was mainly based upon the urinary findings, and concluded that she was suffering from an excess of uric acid in the system, which later proved correct.

The X-rays revealed a number of calculi in the left kidney, and examination of the ureters by means of the cystoscope showed the right kidney to be healthy. The calculi were removed and the patient made a good recovery, losing all her gastric troubles.

Einhorn speaks of an *achylia gastrica* in renal calculi, where all the stomach disturbance was relieved by removal of the calculi.

We have many cases coming to us of perhaps a milder type than the above-mentioned, yet belonging to the same category, complaining of headaches, flatulency, an increase or loss of appetite, dirty tongue, a hyper- or hypochlorhydria, with lessened motility. They are often big meat-eaters and tea-drinkers. Generally they drink very little water, have sedentary habits, nervous, irritable temperaments, etc. In most of these cases I believe you will find a uricacidemia closely associated, and often the cause.

How are they best relieved?

1. Preventing the accumulation of uric acid in the body and blood.
2. Removing the excess of uric acid from the body and blood.
3. Keeping the uric acid in solution.

(1) The prevention of reaccumulation of uric acid.

We know that the excess of uric acid in the blood is largely due, first, to the consumption of articles of food which contain uric acid or its equivalents in large amounts. Secondly, because so much nitrogen is taken into the system that the uric acid formed out of it in relation to urea is not all excreted, and as a result of taking so much animal food the alkalinity of the blood is low, which prevents the proper excretion of the uric acid that is being introduced with this kind of food, as well as that which is formed out of its nitrogen. Thus animal food increases the introduction and formation of uric acid, and at the same time prevents its elimination.

One of our best means of treatment is to cut off all foods that contain much uric acid or its equivalents, and to partake of no more nitrogenous food than is necessary to keep the urea at a normal level.

A good way to find out what foods are rich in uric acid

is to watch the excretion of uric acid and urea from day to day while giving a constant diet, and if a certain meat or fish increases the uric acid out of proportion to the urea, then avoid it.

In a series of interesting experiments along this line, Haig found that tea and coffee headed the black list, containing as much as 175.0 and 70.0 grains per lb. respectively. Then followed meat extracts and juices, and what he calls hospital beef tea (1 lb. of meat cooked for 8 hours). Liver, kidney, sweetbread all contain high percentages.

The quantity of nitrogenous food required for proper nutrition is best based upon the amount of urea excreted, taken in consideration with the weight, strength and endurance of the patient. A good rule for an adult man is to multiply his weight, say 140 lbs., by 3.5, which is the number of grains of urea per lb. per diem, and then multiply the result by 3, which number stands for the amount of albumin required to produce the urea; and this gives you the amount of albumin in grains that he has consumed each day.

Sir W. Roberts' experiments indicate that starch, sugar and fat have not the least direct influence on the production of uric acid, but as free use of them restricts the intake of nitrogenous food, they indirectly diminish the average amount of uric acid.

What about carbohydrates?

We know that the conversion of azotized foods is more complete with a minimum of carbohydrate; therefore, they should be used moderately. Potatoes are useful, as they dissolve the uric acid and take it up from the tissues. Plenty of water should be drunk, moderate regular exercise, tepid alcohol rubs and mineral waters.

The removal of the excess of uric acid from the body and blood is best obtained by keeping the blood alkalinity as high as possible, which, as I have stated, prevents precipitation of the uric acid.

Lavage and electricity applied to stomach wall, and all measures directed to improving the secretion of the gastric juice and tone of the gastric muscles are best calculated to bring about a condition of the blood suitable for keeping the uric acid in solution.

Acid salicylic is one of the best drugs we have for dissolving and eliminating uric acid from the system, but it is not supposed to cause new formation of uric acid, and acts better where the alkalinity of the blood is not high. For this reason it is a mistake to give alkaline salts of potassium and sodium along with it.

Piperazidin also acts well in certain cases as a solvent and

eliminator of uric acid. I have had under my care for some time a retired military officer, who suffers periodically with intense headaches, some gastric disturbance, and almost continuous passage of gravel per urethra. He has at different times passed quite large calculi per urethra, which were accompanied by much pain and hemorrhage.

He finds piperazidin the only drug that keeps the uric acid in solution, thus relieving his headache and lessening the formation of gravel and calculi. I have been obliged to restrict his diet to milk for a month at a time, which procedure is always followed by excellent results.

Thyminic acid is another drug supposed to keep uric acid in solution, and prevent its precipitation into the tissues. I know nothing of it from experience. In conclusion, I wish to emphasize the importance of recognizing the fact that uricacidemia holds the centre of the stage in many of our gastric dramas, and if we wish to exterminate him before the curtain falls, we must cut off his nutrition and bleed him.

#### REFERENCES.

1. Leonard Hill, "Recent Advances in Physiology and Biochemistry."
2. Garrod, A. B., "Gout and Rheumatic Gout."
3. Haig, "Uric Acid in Causation of Disease, 1903."
4. Van Valzah and Nesbit, "The Diseases of the Stomach."
5. Ebstein and His.
6. Einhorn, "Diseases of the Stomach."
7. Roberts, Sir W., "Urinary and Renal Diseases."



## TWO RESPIRATORY SYMPTOMS OF SERIOUS IMPORT.\*

BY A. F. MCKENZIE, M.D., MONKTON, ONTARIO.

*Mr. Chairman and Members of the Ontario Medical Association,*—My old professor of medicine, Dr. H. H. Wright, to whose memory as a man and physician I am pleased to be able to pay a tribute of respect, was wont to impress upon his students the inherent tendency towards recovery which exists in most attacks of illness. This tendency forms the common foundation for success in all systems of therapeutics, and it is a foundation so broad and deep, and yet with such indefinite outlines, it is no wonder that, however intelligent and well educated in other respects he may be, the layman who has to judge only by results in a few isolated cases, is frequently carried away by enthusiastic admiration for some new therapeutic system.

Probably no great progress will be made towards the elimination of quackery, both within and without the profession, until this simple idea of the natural tendency towards recovery in many cases of illness becomes the common property of mankind.

While, however, we recognize this tendency, we also have forced upon us the fact that, inextricably interwoven with the forces working for the recovery of the patient, are forces tending towards his destruction. To estimate so far as he can the relative strength of these antagonistic forces, and to what extent they can be influenced by the resources of his art in any case of illness, and thus form a prognosis, is one of the duties of the physician.

In many instances, however, we are forced by our own personal limitations and by the limited knowledge of the profession at large, to be very cautious about expressing our opinion concerning the outcome of any given case. We have to take into consideration not only the particular disease as it affects mankind in the average, but the general condition of the patient and the particular circumstances in him and his surroundings which give the case a hopeful aspect or the reverse.

Leaving aside the exact name of the disease from which the patient may be supposed to be suffering, the state of the pulse, the condition of consciousness and the character of the respiration are probably the principal guides by which most of us form

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an estimate of the outcome of the case. Too much importance should not be attached to any one symptom, but an attempt should be made to interpret it along with all the other associated symptoms and conditions.

Of the various symptoms connected with the respiratory system, I would like to call attention to two which I consider to be of serious import. During normal respiration there is no noticeable up-and-down movement of the larynx and trachea. When the respirations are accompanied by this up-and-down movement of the larynx, and with it, of course, the trachea, I have been for a number of years in the habit of calling it tracheal breathing. I am not quite sure whether this is a term coined by myself or whether it has been used by others. The symptom appears to me of sufficient importance to be worthy of a name, and in the meantime I do not know of any term more appropriate than that of tracheal breathing. It has to me a somewhat euphonious sound, calls attention to the movement of the trachea, and is perhaps further justified by the fact that the term "tracheal tugging" has been applied to similar movements of the windpipe in cases of aortic aneurism, accompanying, however, of course, the cardiac pulsations instead of the respirations.

Tracheal breathing is easily recognized by both touch and sight. The range of movement varies from about a quarter of an inch or less up to half or possibly three-quarters of an inch.

In the literature at my command I am able to find very little on this subject. Hutchison and Raney<sup>1</sup> say that movements of the laryngeal box are sometimes conspicuous, and may call for explanation, but nothing further is said as to the conditions in which we may expect to find these movements. One of the writers<sup>2</sup> on diphtheria in Allbutt's System of Medicine, says that "the up-and-down movements of the larynx which attend respiration are much increased in laryngeal dyspnea." He thus speaks as though there were normally a certain amount of movement. If this movement be normally present during respiration, its extent must be very slight, as any of you can see by glancing at your neighbor's larynx. Jacob<sup>3</sup> says: "In cases of dyspnea depending upon stenosis of the larynx, this organ makes wide respiratory excursions, and the head is thrown backwards, while in cases of stenosis below the larynx, this organ remains still, and the head is bent forward."

About three years ago<sup>4</sup> I read a paper on "The Clinical Significance of Tracheal Breathing" before the Huron Medical Association, and in it I stated that I was unable to say when or where my attention was first called to this symptom. Recently

after a somewhat extended search, I have been able to find a paper, through which, or through a synopsis of which, the symptom was probably first brought to my notice. The paper is by Dr. John Shrady,<sup>5</sup> of New York, on "Signs of the Moribund Condition." In this paper, published twenty years ago, he says: "The most valuable sign of inevitable dissolution is the up-and-down movement of the pomum Adami, always providing it be persistent."

In an extensive article on "Death, its Modes, Signs, and Premonitions," appearing in the *Buffalo Medical Journal* nineteen years ago, the writer gives the credit of first pointing out this symptom to Dr. George F. Shrady. Whether this is a confusion of names, and he should have said John instead of George, I am unable to say.

These are the earliest references to the symptom that I can find in the literature at my command, but it appears to me that a symptom that is so easily recognized by both sight and touch must have been noted by many observers from the time of Hippocrates to the present. In these days of advanced methods of diagnosis by means of the X-ray, blood-counts, estimation of opsonic indices, and other means, which, however, require special apparatus and an amount of technical skill which the busy general practitioner feels that he cannot readily acquire, it is well for us to not neglect those signs and symptoms which can be detected by the unaided senses. Here is a symptom that can be easily recognized by anyone, even if he happened to be blind. The symptom, however, is not quite so positive in its meaning as would appear from Shrady's statement. If, indeed, it were true, as Shrady says, that it is a sign of inevitable dissolution, a knowledge of it would be very valuable. My limited means of observation have led me to form the following provisional conclusions regarding this symptom:

(1) In normal respiration, there are no up-and-down movements of the larynx and trachea, or in other words tracheal breathing is absent.

(2) Tracheal breathing may occur during the course of any severe illness, and when it does usually indicates a serious condition, and very often points to a fatal termination.

(3) The amount of danger appears to be in direct relation to the extent of the movement—the greater the movement the greater the danger.

(4) When this symptom occurs in connection with diseases of the lungs, it is probably not of such grave significance as when occurring in cases where the respiratory tract is sound or only



secondarily involved. The cases I have seen recover and those in which death has been delayed for long periods have mostly been in connection with respiratory troubles. Two of the most pronounced cases I have seen were in patients suffering from asthmatic attacks. One of the patients, however, was able to come to my office, and both recovered. I am not able to say whether or not all severe attacks of asthma are attended by tracheal breathing. No description of asthmatic attacks with which I am acquainted makes any mention of the movement. With regard to the various forms of croup, I am not in a position to state whether or not the presence of this symptom is of any diagnostic value. Shrady in his article says that when this symptom appears in diphtheritic croup, neither tracheotomy nor intubation is available. This statement of Shrady's was made before the introduction of antitoxin, and although I have no personal experience to go by, I imagine that it would need to be modified at the present time.

(5) In old, debilitated subjects, the presence of this symptom, particularly in the slightest range of motion, is perhaps of less significance than when occurring in subjects who, previous to their illness, have been in vigorous health.

(6) This sign may indicate a serious state of affairs when other symptoms by which we are ordinarily guided, such as the state of the pulse, condition of consciousness, etc., do not appear alarming.

(7) If this symptom is present in a case of acute illness, and the patient recovers, improvement in the other symptoms, as a rule, runs parallel with the gradual cessation of the tracheal breathing.

(8) I am inclined to think that this symptom is present in the suffocative stage of nitrous oxide and ether narcosis, without indicating any particular danger; but as I have had very little experience in the administration of these anesthetics, I am not in a position to speak positively.

(9) In a case of acute abdominal trouble, where the diagnosis was in doubt, and this symptom was present, I would venture to suggest that it would be an indication for exploratory operation, as the abdominal lesion that would produce this symptom would probably be a serious one, and operation by a skilled operator, and with favorable surroundings, would likely give a better chance for recovery than expectant treatment.

(10) Although occasionally other symptoms may point to a speedy fatal termination before the onset of tracheal breathing, yet so far as my observation goes, death is nearly, if not quite,

always preceded for a longer or shorter period by this sign, the period ranging as a rule from a few hours to three or four days, occasionally to a few weeks, and in one case coming under my observation, to some months. Probably some cases of death, particularly when very sudden, may not be preceded by this symptom, but I am inclined to think that the relative proportion of such cases is small.

Shortly after I read my paper on this subject before the Huron Medical Association; my attention was called to an article<sup>7</sup> by R. A. Chase, of Philadelphia, describing a closely allied but different respiratory symptom, which he terms sterno-mastoid breathing. Chase thus describes it: "After grave symptoms have set in, and generally not very long before death supervenes, it will be seen that the head of the patient moves up and down in a rocking fashion, synchronously with the breathing, or rather it may better be described as a forcible raising of the head and chin, giving a fanciful beckoning motion to the head. This action, a veritable death's call, is brought about by the strong contraction of the two sterno-cleido-mastoid muscles in an effort to facilitate breathing. Every other symptom of the dying state may at times improve or even pass off, but after sterno-mastoid breathing has once begun, the patient never revives, passing at varying rates into the decline, surely and progressively to the end. One may see whimsically in it the portal to the valley of the shadow of death, that once entered no one ever turns back."

In a record of one hundred cases observed by himself and colleagues, the duration of this symptom was found to range from seven hours to one minute. The medium length of time it lasted before death was twenty minutes. Chase formerly had the impression that this important sign was never absent in the dying, being present even in cases of sudden death, appearing in the one or two final gasps. In recent years, however, this belief has had to be modified, and he is assured by a longer experience that there is a small proportion\* (from five to ten per cent.) in which it may not be detected. In one or two cases he has known this symptom to cease for a few moments, only to be promptly resumed.

Since reading Chase's paper, although I have had several patients under my care die, I have only had one case in which I was able to see the patient close enough to the time of death to observe this symptom. In my notes of his case, which was of a sub-acute nature, I have mention of the fact that tracheal breathing of medium extent was present twenty-five days before death. Fifteen hours before death it was noted as being well marked,

and eleven hours before death as very marked. About forty-five minutes before death, sterno-mastoid breathing, as described by Chase, was noted.

It appears, therefore, that these two respiratory symptoms are of serious import. When tracheal breathing occurs, the patient is as a rule in a serious condition, and in many instances will not recover. When sterno-mastoid breathing sets in, if the observations of Chase are correct, the patient never recovers.

It is rather curious that neither Chase nor Shrady appear to have been acquainted with the symptom to which the other attached so much importance.

I shall not, in this paper, attempt to give any explanation of these symptoms, beyond the fact that I consider they are due largely, if not entirely, to excessive and uncontrolled action of the accessory respiratory muscles and muscles associated with them in action, and that they indicate a last desperate effort on the part of the recuperative forces of nature to overcome the forces that are tending towards the destruction of the individual life of the patient.

#### REFERENCES.

- (1) Hutchison and Raney, "Clinical Methods," p. 35.
- (2) Allbutt's System, 1st edition, Vol. I., p. 747.
- (3) "Atlas of Internal Medicine and Clinical Diagnosis," p. 37.
- (4) *Dominion Medical Monthly*, July, 1906, p. 7.
- (5) *New York Medical Record*, June 8th, 1889.
- (6) *Buffalo Medical Journal*, June, 1890.
- (7) *New York Medical Journal*, Aug. 25th, 1906.



## THE PATHOGENIC INFLUENCE OF THE EYE ON THE EAR.\*

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An important and interesting article has recently been published by Dr. Marcel Rollet in the *Revue Hebdomadaire de Laryngologie, d'Otologie et de Rhinologie*, and translated by Dr. Park Lewis, of Buffalo. Rollet shows clearly that, under irritation of eye disease, such as disease of the cornea, iris and choroid, the phenomena of tinnitus may be produced. I have observed this a number of times, and subjoin two cases in illustration of the fact.

C. E. J., aged 51, first consulted me April 17th, 1905. Vision Right—15/20, 2 Sn; V. L.—15/0, 6 Sn. With minus 4.50 V. R.—15/50. With minus 7, V. L.—15/50. He complained of floating spots, pain in using the eyes and occasional headaches. Examination with the ophthalmoscope showed floating opacities in the vitreous, especially in the left eye, choroiditis in region of the macula, and a considerable degree of myopia, as indicated by the refraction as above. On October 18th, he came back, stating that he had been accidentally struck over the left eye. Vision hazy. With the ophthalmoscope, no fresh hemorrhages are visible, but the upper and outer section of the retina looks hazy and indistinct. From this on he returned, complaining that the vision of the left eye became suddenly hazy at times, and that at the same time he noticed a noise in the head of a buzzing or singing character. Examination of the ears gave a negative result. Weak solutions of dionine and fomentation with decoction of poppy capsules gave relief, and with the subsidence of the eye symptoms the noise in the head ceased. This occurred several times. It would appear that there is a tendency to detachment of the retina in the left eye. He thought he heard the singing in both ears, but it was most noticeable in the left, corresponding to the left and most myopic eye.

Miss J. H., aged 17, came to me May 19th, 1909, complaining of headache and defective vision. Vision both eyes—15/0, 2 Sn. With minus 8, left eye—15/100; with minus 9, right eye—15/100. Examination with the ophthalmoscope shows media clear, extensive choroidal changes in region of the yellow spot, pallor of both optic nerves. A slight degree of nystagmus is present. She

says that she could never see well at any time. The noises in the ears she compares to the boiling of a kettle. The noises are not constant, but recur when her eyes and head ache. Examination of ears give negative result. Hearing normal. It would appear that in this case, as in the former one, there is a tinnitus set up by ocular disturbances, which tinnitus appears and disappears with the increase or decrease of the ocular irritation. I have thought it worth while to publish these cases, as it is only by the accumulation of facts that we can arrive at a correct conclusion as to eye-ear correlation.

## A CASE OF OPIUM POISONING.\*

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A. TAYLOR, M.D., GODERICH.

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I bring this paper before you for two reasons. In the first place, I was asked to do so by Dr. Johnson, for the purpose of putting it on record. The second reason is the age of the infant—2 months 19 days—and her recovery after being in a state of coma for six hours.

When I first saw the child she was very pale and livid. The respiration was very slow and accompanied by mucous rales. They were so slow that each breath seemed her last. There was no time to count them accurately, but I don't think they were more than 5 or 6 a minute. The pulse was very feeble—almost imperceptible. The skin was cold and bathed in perspiration; pupils much contracted. These were the chief symptoms; but as I knew that the child had taken a grain of opium that I had left the previous evening for an adult patient, I did not waste much time in examining them.

It was a serious case, and one that I did not hope would recover, so did not hesitate to use a heroic remedy. I immediately injected 1-50 grain of atropine hypodermically, and asked the nurses to bring me ice-cold water while I was preparing the hypodermic solution. I also asked them to take all the clothing off the child, and to have plenty of warm blankets ready so that when one got wet we could put the child in a warm, dry one. After administering the atropine hypodermically, I commenced dashing ice-water over the face, chest, and abdomen of the child, then had the nurse rub her dry with warm towels and turn her over, when I would repeat the process on the back of the child. I continued this treatment for three hours, when at last we were rewarded with a tiny little cry, which grew stronger and stronger until it became quite boisterous—much to the relief of the nurses and myself. The breathing became more natural, the pulse much stronger and the pupils dilated.

Now, gentlemen, there was no mistake about the quantities. I bought the opium in compressed powders of one grain each, and the atropine was a tablet which I took out of my hypodermic case. There cannot be the slightest doubt about either the amount given or the antidote used. I forgot to mention that I used artificial respiration at first with what I thought good

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\*Read at Meeting of Ontario Medical Association, June, 1909.



results. I have no hesitation in stating that the little patient's recovery was in a great measure due to the atropine used. I do not believe that it was a mere coincidence. I question very much the recovery of the child by the other means used.

Dr. Reese, in his latest edition of "Medical Jurisprudence and Toxicology," states that "atropine has long been regarded as specifically applicable, but the trend of opinion at the present day is against this view." Reichert, who studied the physiological relations of the two drugs carefully, regards atropine as applicable only in the second stage of morphine poisoning, and then only in limited use. He suggests that an antidote may be found in adrenalin. I have had no experience with adrenalin, but I am satisfied that if there were no antagonistic properties in these two drugs, the remedy used to cure the little patient would have produced the result I was so anxious to prevent. It is needless to mention that we used friction to the limbs and body of the child, as well as every means to keep her as warm as we possibly could, while dashing cold water on her.

My object in bringing this paper before the members of this Association is to draw attention to the age of the little patient, and the accuracy of the amount of the drugs used. Either of them would have produced death if given alone, proving that the one must be an antidote to the other, making very little difference which was used in the first place.

## Selected Article.

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### DIETETICS: ITS APPLICATION TO THE TREATMENT OF CHRONIC DISEASES.\*

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BY WILLIAM HENRY PORTER, M.D.

Professor of Pathology and General Medicine, New York Post Graduate Medical School and Hospital.

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All that will be attempted in this paper will be a general consideration of a few practical points, of value to the general practitioner.

As regards their origin, all foodstuffs are divisible into two general classes—vegetable and animal. These two are further divisible, chemically speaking, into four distinct classes, to wit: the inorganic, which includes water and salts of various kinds; two classes of simple heat-producing substances, one including cellulose, starch and sugar, the other composed of all kinds of fats; the fourth including the pure proteid and the proteid-like bodies, or the constructive, tissue-building protein compounds. For a still clearer understanding of the subject, this fourth class is divided into two; one including the purely proteid substances, the other the proteid-like compound, to which an atom of iron and phosphorus is attached in its synthetic formation. This latter subdivision or fifth class, for convenience and a better comprehension of the subject, is classed as a hemoglobin- and lecithin-yielding one. This particular form of proteid-like substance is absorbed from the lumen of the alimentary canal into the enterohepatic circulation and conveyed to the epithelial cells of the hepatic gland, where it is oxidized into hemoglobin and lecithin, thus furnishing to the system these two much-needed compounds. The hemoglobin thus formed replaces the daily loss, while the lecithin passes on to the nervous system, there to be oxidized into the protoplasmic masses constituting the nerve cells. When lecithin is oxidized in the nerve cells in this manner it yields heat energy directly to the cells of the central nervous system.

Outside the five classes here enumerated no others of importance are found in the food-stuffs.

It should also be remembered that all organic substances are

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\* Read before the American Therapeutic Society, May 8, 1909.

found in many different isomeric forms, but these isomers should not be mistaken for radically different compounds so far as the number of atoms is concerned. The difference is rather in the relation that the atoms bear to each other. This often causes the proteid bodies to assume different physical forms, thus apparently multiplying varieties while they all still remain proteid bodies. The same is true of the glucose molecule.

With this simple outline of the primary origin and chemistry of foodstuffs, we are in a position more closely to study their economic value, digestive and assimilative possibilities as applied to the dietetic management of chronic diseases.

Both the vegetable and animal foods contain these five essential classes, all of which are necessary for the maintenance of animal life. This being true, why is not one type of food just as available as the other? If it is not true, what advantage has one class over the other? These questions can be solved only by a close comparison of the relative proportions of the five classes as found in the two primary divisions, taken in conjunction with the demands of the physiological economy for these five different groups of substances. Chemicophysiology investigation has demonstrated that a certain amount of each of these five classes must be supplied daily to insure the best nutritive results. Water and salts, a sufficient amount of the purely heat-producing compounds, a certain amount of tissue-building or pure proteid material, and the requisite quantity of hemoglobin- and lecithin-yielding material must be supplied. All this must be accomplished and still keep well within the oxygenating capacity of the system. In this connection it is well to note that, in health, nature permits a quite wide latitude between the possible intake of food and the oxygenating capacity of the animal economy. Were this not so, it would be impossible to maintain a perfect state of health. In connection with disease, however, this latitude between the intake of food and the oxygenating capacity of the system is often reduced to a very dangerous point, so much so that it becomes one of the exciting factors in the maintenance of the pathologic process. Even with the largest possible latitude between the intake of food and the oxygen supply, neither the vegetable nor animal diet alone, so far as composition is concerned, is absolutely perfect. The latter, however, so far as the human economy is concerned, is more nearly perfect than is the vegetable class, as we shall see a little later in our analysis of the two.

Looking a little more deeply into the exact and comparative composition of the two classes of human diet, it will



be noticed that the vegetable class contains less water than the animal, while the salts are more evenly distributed between the two. The vegetable class contains a very high percentage of cellulose, starch and sugar, or glucose-forming elements; while the animal, excepting milk and its derivatives, is absolutely deficient in this respect. The vegetable class contains a very low percentage of fat, while the reverse is true of the animal foods. In the purely proteid group it is pretty evenly abundant in both classes. If there is any advantage as to quantity, taken as a whole, it will be found in favor of the vegetable class. With the fifth or hemoglobin- and lecithin-yielding group, the advantage is largely on the side of the vegetable class of foods; in fact the animal class is deficient in this respect.

Having found these five classes in both the vegetable and animal foods, the next question is, what are the requirements of the system as to the exact amount of each of these groups to maintain the highest grade of nutrition? Careful observation and close study of the chemistry and physiology of the animal economy seem strongly to indicate the necessity for a continuous and quite uniform supply of each of these five classes to secure and maintain the best nutritive activity. This applies particularly to the last four classes—the glucose-forming, the fats, proteids, hemoglobin- and lecithin-yielding substances. If anything, it is more important with the last two of the four than with the first two; they being tissue-builders, while the others are only heat-producers. How the first three of this group of four—or the glucose, fats, and pure proteids—shall be proportioned, is the all-important question.

If we turn to nature and the composition of milk, it will be found that the three are quite near together in percentage amounts, but with a slight preponderance in the glucose column. This is true also in a large measure in the more acute processes and even in perfect health. The vegetable class is so constructed in its synthetic formation that it is very difficult of digestion, while all animal substances are easy of digestion. The difference is so great that from 16 to 80 per cent. of the vegetable foods pass through the alimentary canal undigested, while with the animal foods the loss ranges between 2 and 9 per cent. From this fact alone, it is easy to understand the greater economic value of the animal as against the vegetable class. It shows also why eating too abundantly of animal food is followed by conditions of suboxidation, especially if there is lowering in the oxygenating capacity. At the same time it has been proved conclusively that neither class is absolutely perfect in all respects

for general use during the whole period of human life, that is, if the aim be to secure the highest results, both mentally and physically. While it is true that some animals are so constructed that they can handle to better advantage vegetable foods than is the case with other species, it is not true that man can digest vegetable food easier than the animal class. Therefore, between these two extremes there will naturally be found two other forms of dietaries, one which deserves to be classified as a well regulated or ideal mixed diet, the other an imperfectly regulated diet, in which the vegetable and animal class are less perfectly adjusted.

#### FOR AN ABSOLUTELY RESTRICTED DIET.

Buttermilk, skimmed milk, or milk, or some of the fermented milks (kumyss, zoolak, kefir, sumal). Beef tea, bouillon, and plain mutton, chicken, clam or oyster broth.

#### AN IDEAL MIXED DIET.

*For Breakfast.*—Two eggs, eight ounces of milk, two ounces of wheat bread and butter.

*For the Mid-day Meal.*—From one-quarter to one-half pound of beefsteak, eight ounces of milk, three ounces of wheat bread and butter.

*For the Night Meal.*—From one-quarter to one-half pound of beefsteak, eight ounces of milk, two ounces of bread and butter.

*At Bedtime.*—Eight ounces of milk.

Beefsteak is taken as the working standard among the meats, as it is the most easily digested of all the foodstuffs. Under the heading of meat is included lamb, mutton, occasionally veal; all kinds of fish, including the shell forms, such as oysters, clams, lobsters, and crabs; poultry and game of all kinds.

The meats to be broiled, boiled or baked.

The fish to be boiled or baked.

The oysters and clams to be eaten raw or stewed. The lobsters plain boiled.

A little crisp bacon may be taken from time to time, also ham and corned beef, *without cabbage*.

Eggs may be taken boiled, poached or scrambled.

The milk is best taken warm, or with a little lime-water added.

Wheat bread is taken as the standard, because it is the most easily and perfectly digested. It should be at least twenty-four

hours old, or toasted; rye, graham, zwiebach, or the health food breads may at times be substituted.

Weak coffee, without milk or sugar, or with a dash of milk, may be taken freely as a beverage. Coffee taken clear aids digestion, but with milk and sugar often disturbs digestion.

#### ADDITIONS TO ENLARGE THE ABOVE DIET.

In the line of vegetables: string beans, green peas, lima beans, spinach, lettuce, asparagus and cauliflower. These are chosen because they are the least likely to excite intestinal fermentation of an abnormal character. They should be well cooked, and only one vegetable at a meal.

When a vegetable is taken with the meal there must be a reduction in the quantity of meat or milk as given in the above table.

#### FOODSTUFFS TO BE AVOIDED.

All fruits, either cooked or raw; all cereals and breakfast foods, nuts, sweets and pastry of all kinds, potatoes in all forms, onions, tomatoes, turnips, parsnips, carrots, celery, radishes, cabbage, egg- and oyster-plant, corn, etc.; pork in all forms, except as above stated. Rich gravies and all forms of soup are excluded. The latter, first, because they tend to destroy the keen appetite which makes possible the eating of plain and substantial food; second, because they destroy the appetite and stimulate a strong desire for the entremets and highly seasoned foods; and, third, because the mixed, cream and rich stock soups tend to excite undue and putrefactive fermentation in the intestine. Rich gravies, because they disturb the digestion.

Potatoes, that are so commonly used, are excluded for three reasons: first, because they have a high percentage of starch and a low percentage of proteid; second, because they are so apt to be taken three times daily, and are so often eaten fried; third, and chiefly, because of the ease with which the starch contained in the potato is digested and assimilated within the system. In consequence of this rapid utilization of the potato starch, which yields to the animal economy only heat, the oxygenating capacity of the system is exceeded, and there is not a sufficient amount of oxygen left within the body to perfectly oxidize and assimilate the proteid constituents of the food that must be accomplished if a perfect state of health is to be maintained. In the repair of the diseased conditions it is still more necessary that the proteids shall be perfectly oxidized and assimilated, hence the absolute necessity to exclude the potatoes and food products enumerated.



Fruits are excluded, first, because they are usually picked before they are fully ripe; second, because they are in a state of partial putrefaction, and are often covered with bacterial life when eaten, and often taken in excessive quantities. Having reached the alimentary canal in this state, they excite undue and putrefactive fermentation of proteid constituents contained within the intestinal canal, and thus prevent the perfect digestion and assimilation of the proteid elements of the food.

When these rules are followed, a good variety in the dietary can be secured, and a high grade of nutrition established and maintained. Disregard of these rules will sooner or later result in disease of one kind or another.

The close adherence to these rules, with suitable medication, will result in the cure of many a diseased process, which otherwise will make life miserable and ultimately cause an untimely death.

The ideal mixed diet of the author is so adjusted that it contains the requisite percentage of the five classes supplied in the most easily digestible and assimilable form possible. It furnishes the requisite amount of heat production equally distributed between the hepatic and pulmonary circuits to bring about a harmonious and automatic balance of action between innervation and inhibition of all parts of the body, thus producing perfect physiologic action in this respect; it supplies the requisite amount of pure proteid material for tissue construction and regeneration; it supplies the full amount of hemoglobin- and lecithin-yielding material, all of which is fully accomplished well within the oxygenating capacity of the system. This form of diet is best secured by preponderance of the animal class, and by keeping the vegetable class well in the minor quantity. The less perfect mixed diet is one in which the reverse is true. This latter form is often spoken of as a vegetarian diet, implying thereby that vegetables only are eaten; but a truly vegetable diet must exclude absolutely all animal foods, even in the process of cooking. In like manner, the animal diet must absolutely exclude all substances of a vegetable nature. It is the loose manner in which these terms are used that has led to much error in the discussion of this very important subject, and hence many of the deductions have been erroneous.

From the foregoing it is but just to argue that a well-regulated or ideal mixed diet must yield the highest grade of nutritive activity, both in health or disease, be the latter either acute or chronic. With such diet, in conjunction with scientifically applied therapeutics, marvelous and at times almost miraculous

results are often secured in the management of chronic diseases. Just how the details of this dietetic adjustment can best be accomplished must be left, in a large measure, to the judgment of the individual practitioner; for he alone knows the idiosyncrasy of the patient under treatment. By selecting from the general dietary, which is here given, such of the allowable foods as will best agree with the individual case, and ruling out absolutely those excluded, an ideal and easily digestible and assimilable diet can be secured; one that will furnish the right amount of proteid, fat, glucose-forming material, and a full supply of hemoglobin- and lecithin-yielding material. At times the quantities here given may have to be shifted a little in accordance with the weight, oxygenating capacity of the system, and work to be accomplished.

From this brief study the following deductions naturally follow:

1. That all foodstuffs are divisible primarily into two distinct classes; purely vegetable and purely animal.
2. That both are further divisible into five distinct groups of chemical substances.
3. That neither class is absolutely perfect in composition as regards the five subdivisions.
4. That the animal approaches more nearly to perfection than does the vegetable class.
5. That the animal class is more easily digested and assimilated than is the vegetable.
6. That the animal is more economic than the vegetable.
7. That to secure a perfect or the ideal diet the two must be used together.
8. That between the two extremes, we have two other dietaries, one in which the two classes are perfectly blended, the other in which the two are less perfectly adjusted.
9. That the latter is often spoken of as a purely vegetable diet, while in reality it is only a form of mixed diet, hence there is much confusion in the minds of many who discuss this subject.
10. That this inaccurate use of terms has also led to misconception and error in deductions.
11. That when an ideal diet is secured, one which just suits the individual, marvelous results can be secured when used in conjunction with scientifically directed therapeutics.—*The Post-Graduate*.

# Progress of Medical Science.

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## MEDICINE.

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IN CHARGE OF W. H. B. AIKINS, F. A. CLARKSON, AND BREFNEY  
O'REILLY.

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### Postural Lung Dullness.

Albert Abrams, in the *Medical Record* of April 3rd, 1909, describes what he designates "atelectatic zones" in the normal subject, which are demonstrated both by X-rays and percussion. They correspond roughly to the points of election of tubercular infections of the lungs, and are frequently present in "pulmonary anemia." In healthy persons, Abrams also describes "acute lung dilatation," a condition in which a hyperresonant note on percussion is obtained in the normal individual. It is essentially an emphysema; on applying a solution of cocaine to the nares both this and the atelectatic zones can be made to disappear, the dilatation fibres of the bronchioles being inhibited reflexly and the normal note substituted for hyperresonance, on the one hand, as, if in consequence of a nasal anomaly, the constrictor fibres are irritated, cocaine, by inhibiting this action, will transform dullness into resonance. The pretuberculous lung, according to the author, is essentially an emphysematous lung, is hyperresonant, and on deep inspiration no extension of its borders can be demonstrated, the author believes that as resonance is usually found in early phthisis, and that, as this resonance is in part due to the vibrations of the sternum, providing the osseous note can be eliminated (either by pressure of the hand on the lower sternum or by means of a vibro-suppressor, an instrument much like an old-fashioned tourniquet, provided with a pad and screw apparatus which can be adjusted over the sternum and tightened at will), dullness, say, of an apex can be elicited much earlier in the progress of the disease. The author also draws especial attention to the effect of posture (in the normal) on the percussion note, for example, on leaning forward the anterior zones of the thorax show a defective resonance, the reverse occurring on leaning far backwards, lying on one side, and leaning to one side. The recumbent posture will also yield characteristic changes on percussion. These alterations involve usually a large portion of lung, are markedly influenced by



position, whereas in the atelectatic condition above described the phenomena is localized and can be made to disappear by the "cocaine test," and by eliciting the "lung reflex" (a forcible massage over the involved lung). Abrams attributes Grocea's sign to a passive hyperemia, disappearing as it does on the patient assuming the prone position. He also recognizes the value of applications to the thoracic wall in disease being justified by the action of the "lung reflex," and the use of amyl nitrite in hemoptysis from exsanguination of the lung by promoting the lung reflex of contraction.

B. O'R.

### Treatment of Heart Disease.

Barr says that there are very few chronic diseases so amenable to treatment and so compatible with a long life of comfort, if judiciously handled, as those of the heart. Rheumatism holds the first place in its causation. In rheumatic fever there is a marked increase of sarcolactic acid, therefore all foods, such as starch and milk, which give rise to formation of lactic acid, should be omitted. There is also a tendency to fibrin formation, so that everything containing lime, *e.g.*, milk, and its preparations, cheese, gelatin, and animal jellies, should be interdicted. Also, lime raises the blood pressure. An excellent diet for rheumatic fever consists of plenty of hot water, mincemeat and poached eggs, pounded chicken, steamed sole, and other nitrogenous foods. If a carbohydrate is required, well-boiled porridge may be given. Oranges and lemons may be freely used, and later, a fair amount of farinaceous food with plenty of fruit and vegetables, but no milk. Patients with mitral lesions should drink as little fluid as possible, not more than two pints a day, and should be kept on a light dry diet. Alcoholic drinks should be interdicted, tea and coffee with cream may be taken. Lemon squash is a good drink. Tobacco should be forbidden, and in any tendency to edema salt should be eliminated from the diet. Barr then discusses the hygiene, particularly recommending the morning bath from 60 to 90° F., followed by coarse friction. He goes at length into the questions of rest, exercise, and medicinal treatment, under which last head he particularly warns against excessive lime salts in the blood. There is no condition of the heart in which alcohol is beneficial, save spasmodic affections, and in these nitroglycerin, morphine and atrophine are better remedies. Patients with heart disease do better without tobacco. By the method of treatment he details—which should be read in its entirety—Barr asserts that not only may the progress of degenerative heart lesions be stayed, but often their onset may be prevented.—*B. M. J. and J. A. M. A.*

## OBSTETRICS AND GYNECOLOGY.

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IN CHARGE OF ADAM H. WRIGHT, K. C. MILWRAITH, FRED. FENTON  
AND HELEN MACMURCHY.

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### Treatment of Puerperal Endometritis.

Prof. E. C. Dudley writes in his "Principles and Practice of Gynecology": "The endometrium, after an irrigation with a 1:500 formalin solution or some other disinfectant, is swabbed out (using fresh gauze on the forceps), with a 10 per cent. creolin solution or some other disinfectant, and then one-half ounce of Crede's ointment of argenteum colloidal introduced. Thereafter the uterus is not invaded unless some special indications arise.

A dram of Crede's ointment may be rubbed in thoroughly for twenty minutes each day over the back or abdomen. Intravenous injection of 15 grains of a 2 per cent. solution of argenteum colloidal, once a day, is a recent and promising therapeutic resource.

In the treatment of general infections of the peritoneum after operations, Crede's ointment of argenteum colloidal, one dram a day thoroughly rubbed in for two to twenty minutes, and intravenous injection of a 2 per cent. solution of argenteum colloidal once a day in doses of 15 grains, are among the strongly recommended measures.—*Buffalo Medical Journal*.

### Diagnosis and Therapeutics of Pyelitis in Pregnancy.

W. Stoeckel (*Zeit. f. gyn. Urologie*) describes three cases of pyelitis in pregnancy, and comments on the diagnosis and treatment. He says that there is no doubt that pyelitis occurs in pregnancy as the result of the condition. The obstruction of the ureter plays a marked part in its causation. In general pure cultures of the colon bacillus are found in the urine from such kidneys. The condition occurs much more frequently on the right side, and is much more severe than on the left. The etiology is not absolutely clear. The manner of the advent of the colon bacillus, whether by ascending infection from the bladder or by wandering of the germs from the intestine into the blood, cannot as yet be determined. The pyelitis is not the result, but the cause of the general infection. There are three locations in which the ureter may be compressed—one at the pelvic entrance, the second where the ureter passes over the

linea innominata, the third where the ureter enters the bladder wall. There is a typical pain on pressure at McBurney's point. By catheterization of the ureter there is found, at a distance of ten to thirteen centimeters from the bladder, a location where the catheter is not allowed to pass, and this is just beneath McBurney's point. The first symptoms may be pain in the back and side. The difficulties of diagnosis vary; it is easy when there are bladder symptoms, difficult when these are absent. Lesions of the gall bladder and infection may be suggested by the symptoms.—*Amer. Jour. of Obstet.*

### Treatment of Dysmenorrhea.

In Dr. Herman's paper on the above subject, he sets a definite limit to the meaning of the word "dysmenorrhea." It would seem to me that he holds the view that I have for a long time past entertained, and have only seen set forth in one work on gynecology—(American)—namely, that *all* dysmenorrheas are really due to spasm—and hence, I think, a more expressive word would be "menorrhspasm."

I believe that true dysmenorrhea or menorrhspasm—whether in virgins or married women—arises through nerve causes; that from the consequences of some illness, from anemia, from overwork, worry, or, perhaps, from a condition of the general nervous system, normally prone to over-excitability or want of balance. the nervous mechanism of the patient is functionally upset, and the generative organs are among the first to feel the strain, and a tropho-neurosis is set up, giving rise to a spasm of the uterine muscular fibre at the time of the period. What is required, therefore, for a rational plan of treatment is to co-ordinate these irregular spasmodic uterine contractions, and, accepting Dr. Herman's theory of imperfect development of the spinal or sympathetic centre, to adopt some method that will stimulate this centre to full function.

I know that to many gynecologists the mere mention of electricity is "anathema"; but I can assure Dr. Herman or any other practitioner who has to deal with cases of true dysmenorrhea that if they will try the constant current, in conjunction, if possible, with the static wave current, in the manner that I will describe, they will find that they will often obtain the most gratifying results. I am certainly not going so far as to say that *all* cases will yield to this treatment any more than to any other, but (especially in the case of unmarried girls) there is a natural and proper repugnance to any direct uterine manipulations, and it is well worth trying to relieve the intense pains that so many



girls suffer at the times of the menses, when the attempt can be made without outrage to their feelings.

The method that has given me such satisfactory results on the whole that I think it worth bringing before the profession is as follows:

I first apply the wave current from the negative side of a static machine by means of a long metal electrode inserted into the rectum and pushed well forward in apposition with the posterior wall of the uterus. This procedure is perfectly painless—indeed, it is hardly uncomfortable—and treatment lasts for from ten to twenty minutes. I next apply the constant current, and here the method varies according as one is treating a virgin or a married woman.

In the former case two large copper electrodes (8 by 5 in.) are placed one over the abdomen and the other over the lower lumbar region, with four thicknesses of moist Gamgee tissue between them and the skin, and a current of from 20 to 60 milliampères passed for ten to fifteen minutes. Three treatments a week for one or two inter-menstrual periods will often entirely relieve the pain for many months, and, should there be any return, one or two treatments just before a period will be sufficient. In the case of a married woman, after employing the static wave, I apply the constant current by means of the same two abdomino-dorsal electrodes, only that now both are connected to the same pole of the source of current—usually the positive—while the negative pole is attached to a suitable electrode, which is passed into the uterine cavity. In these cases a current of 10 to 30 milliampères for ten minutes three times a week will in nearly all cases give relief.

I trust that a fair measure of success in my own practice in relieving this most common cause of suffering will be considered a sufficient reason for advocating a form of treatment not usually favored by gynecologists, to supplement those suggested by Dr. Herman.—J. Curtis Webb, M.B., B.C., Cantab., in *British Medical Journal*.

### **Causes of Mortality in Cancer of the Uterus and its Treatment by Hysterectomy.**

F. Jayle (*Presse Med.*, Dec. 2, 1908) says that one of the principal factors in the fatality of cancer of the uterus is the rapid march of the disease. There is an acute form, so rapid that we are unable to combat it, which occurs in women under thirty-five years of age, and acts as if young tissues had not the power

to resist its advance, and offered an extraordinary predisposition to its occurrence. In these cases recurrence is to be expected.

All the cases that the author has seen operated on before the age of forty years have recurred. Another form may be called latent; here the cancer is almost without symptoms. When the first symptom, hemorrhage, appears, the disease is already too far advanced to give hope of cure by removal. This form occurs at the menopause and is a cervical epithelioma. The author believes that every woman over thirty-five years of age should be examined every three months by a competent physician in order to be sure of avoiding cancer. The chief obstacles to diagnosis are the deep-rooted opinion among women that pain, leucorrhea and hemorrhage are all natural at the menopause. Another obstacle is the failure of the physician to appreciate the significance of the hemorrhage at the menopause. This symptom is never natural at that period, and always demands a careful examination by the physician. Another unfortunate circumstance is the feeling among physicians that cancer is incurable. Most cases of cancer of the uterus are curable by operation, if diagnosed early enough, before the growth has become generalized. Cancer of the body of the uterus gives brilliant results from removal. So does cancer of the cervix, which has not invaded the broad ligament.—*Amer. Jour of Obstet.*

### **The Edema of Pregnancy.**

Rudaux writes that edema in obstetrical practice is generally regarded as a symptom of albuminuria requiring the treatment suitable for this affection, or as the result of impeded circulation due to the increase in the size of the uterus and consequent abdominal pressure. There is another form of edema which is not accompanied by any trace of albumin, and which appears too early in the pregnancy to be due to the presence of the enlarged uterus. The patient will be found to be suffering from some minor ailment of the liver, kidneys, intestines, or possibly the thyroid or suprarenal bodies. Or she will have gastric disturbance, headaches and neuralgia. A careful examination of the urine will show that, although there is no albumin present, the quantity excreted is below normal. A pregnant woman should excrete from a pint and a quarter to a pint and a half of urine in twenty-four hours, and this quantity often falls to less than a pint. When edema appears it should be systematically measured. Further examination will show a diminution in the amount of urea and chlorates present, while the arterial tension is higher than normal. Treatment entails rest in the recumbent

position, a daily morning dose of magnesia, and diuretic beverages during the day, such as uva ursi, with two teaspoonfuls of lactose. Salt must be omitted from the diet, which, however, may include pepper, lemon and vinegar, as well as the following articles: Vegetable soups, white meats, fresh-water fish, eggs, potatoes, rice, peas, haricots, carrots, artichokes, and salads, cream and cooked fruits, bread without salt, and as drinks, milk, Evian water, or some other mineral water.—*La Clin.*

### **Pregnancy and Phthisis.**

Neitner (*Zentralbl. f. Gynak.*) has collected, in a Strassburg thesis, 27 severe and 34 milder cases of tuberculous pulmonary phthisis detected in a series of 5,720 pregnant women. In 41, or 67 per cent., of the cases, the lung symptoms grew worse during pregnancy. In every case where the larynx was involved the patient's condition became aggravated in the puerperium. In 18 cases pregnancy was interrupted by an obstetric operation; in 3 by Caesarean section, for pelvic contraction in 2, and for cancer of the cervix in the third; in 8 by induced abortion, and in 7 by induction of premature labor. In 16 abortion or premature labor occurred simultaneously. In Neitner's series induction of abortion gave the best results, but this obstetric operation was mostly practised on patients where the lung disease was not advanced. The stage of phthisis in any particular case is of great importance in regard to artificial interruption of the pregnancy.—*British Medical Journal.*



## Editorials.

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### ONTARIO MEDICAL ASSOCIATION.

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The Twenty-ninth Annual Meeting of the Ontario Medical Association has come and gone. There is a general consensus of opinion that the meeting held in Toronto, June 1-2-3, in the year 1909, was successful in all respects. Great credit is due to Dr. Hamilton and his local Committees for their work in preparing for the meeting, and their methods of conducting both the general sessions and various sections. We cannot say that any one man did as much as Ingersoll Olmsted accomplished for the Hamilton meeting of 1908, but we can confidently assert that the officers on the whole worked with a vigor that has never been excelled during the existence of the Association. We have much pleasure in congratulating Dr. Herbert Hamilton, not only upon his restless energy, but also because of the splendid generalship which he showed during the whole campaign, which, under his leadership, commenced immediately after the meeting in the City of Hamilton. He chose his officers at once, and it was soon apparent that their zeal and energy were likely to produce admirable results. They were extremely fortunate in getting such valuable assistance from our dear friends of the United States, and also from physicians and surgeons of Canada outside the Province of Ontario, especially the cities of Montreal and Winnipeg.

The arrangements for the work in sections were probably the most satisfactory that have been known in connection with any medical meeting in Canada, with the exception of the two meetings of the British Medical Association. The section meetings were held during the forenoons of the three days, and the interest in all was maintained up to the end of the forenoon of the third day. The only remarks of dissatisfaction which were heard during the various morning sessions were from members who wished to attend two or three sections at the same time, but even the all-powerful President could not provide any remedy for such inconvenience.

While we have nothing but praise for the work done during the morning sessions, we have to acknowledge that the papers and discussions of the general sessions during the afternoons and one evening were the most successful features of the meeting. A grand commencement was made on the first afternoon, when Dr. J. B. Deaver, of Philadelphia, read his able paper on "Diffuse Peritonitis." The discussion on this subject was one of the most able and one of the most interesting that the Association has ever known. We have not space in this editorial to refer to this discussion in detail, but we may have something further to say in a future issue. Quite on a par with Dr. Deaver's paper was that of Dr. Emmett Holt, of New York, which was listened to with breathless attention and very deep interest. The subject of his address was, "Results of the Serum Treatment of Cerebro-spinal Meningitis." We sincerely hope that we have not seen the last of Dr. Holt. We can assure him that he will always receive a very warm welcome from any part of the little Province of Ontario. Dr. A. R. Robinson, once a country boy in the county of Peel, in this Province, who has made a great reputation for himself in New York, is of course well known to the members of our Association. His paper during the general session of the second afternoon on "Tuberculosis and Tuberculides of the Skin" proved both interesting and instructive.

The President was exceedingly fortunate in securing one who is well known, highly respected and dearly beloved by all kinds of folks, scientific and otherwise, in this part of the world, Professor William Osler. It was found that the largest lecture room of the University Medical Building would not be sufficient to accommodate those who wished to see and hear 'Osler.' On application the Superintendent of the University Buildings very kindly placed the large lecture hall of the New Physics Building at their disposal. It is needless to say that Osler's address delighted his hearers.

Among the other distinguished visitors there is one especially who will always be welcome to this city, Dr. W. P. Manton, of Detroit. He read a very interesting and very practical paper on "The Ultimate End of Surgery, with Special Reference to the Surgery of the Pelvic Organs in Women," which created a very

interesting discussion opened by Dr. Algernon Temple. Another Canadian, who has made a reputation as an operative surgeon in Buffalo, paid his first visit to the Ontario Medical Association, Dr. Herman Hayd. He read an able and instructive paper on "Umbilical Hernia and Its Operative Treatment, with Special Reference to the Mayo Operation." The members of the Association hope that our dear and genial friend will visit us frequently in the future. While making special mention of our distinguished visitors from other countries, we desire to say on behalf of the Association that the members appreciated very highly the valuable assistance rendered by Drs. Blanchard and Vrooman, of Winnipeg, and Drs. Lockhart and Little, of Montreal.

In our comments thus far we have referred only to the work accomplished under the supervision of the Committee on Papers and Business, under the direction of the President and the Chairman, Dr. Herbert Bruce. We desire to say that the Committee on Arrangements, under the guidance of the President and the Chairman, Dr. Bruce Riordan, did valuable and satisfactory work. The general arrangements were good, and the proceedings carried out without a flaw of any sort. Of course it is well understood that the local profession made no attempt to equal the magnificent and expensive hospitality shown by the profession of Hamilton to outsiders at the last meeting. However, we are pleased to say that the profession of Toronto, in a general way, showed a disposition to extend some kindness and courtesy to our visitors, and especially those who came from a distance. We hope that Toronto is improving to some extent as the years roll by, and that in the near future it will know how to entertain properly all visiting physicians.

There is a general feeling of satisfaction respecting the decision to hold the meeting of 1910 at Niagara Falls. It has been supposed in the past by many living in other parts of Ontario that the profession of Toronto wished all the meetings held in that city. This is not correct, however. So far as we know the majority of physicians in Toronto have always voted for holding the meetings in outside places when they had the opportunity. While there are many reasons for holding all meet-



ings in one city the physicians of Canada appear to prefer the arguments which may be brought forward from the other side, and like some variety as to place of meetings.

The total attendance at the meeting was the largest on record, *i.e.*, 347. The largest number at any previous meeting was 307, at the meeting in Hamilton. We congratulate our dear friend, Dr. H. S. Casgrain, on his election to the Presidency. We are pleased to say that his election to this position was very popular. The following is a complete list of the officers elected: President, H. R. Casgrain, Windsor; 1st Vice-President, H. B. Anderson, Toronto; 2nd Vice-President, J. M. Rogers, Ingersoll; 3rd Vice-President, J. C. Connell, Kingston; 4th Vice-President, J. R. Arthur, Collingwood; General Secretary, F. A. Clarkson, 471 College Street, Toronto; Assistant Secretary, G. S. Strathy, Toronto; Treasurer, J. Heurner Mullin, Hamilton.

The following members were added to the Standing Committees: Credentials, W. H. B. Aikins, Toronto; R. R. Wallace, Hamilton. Public Health, M. I. Beeman, Newburg; J. Sheahan, St. Catharines. Publications, W. A. Young, Toronto; J. Ferguson, Toronto. By-Laws, J. W. S. McCullough, Alliston; E. S. Ryerson, Toronto. Ethics, J. L. Bradley, Creemore; J. D. Ivey, Cobourg.

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### FLIES AND MOSQUITOES AS CARRIERS OF DISEASE.

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We are glad to note that the laity, as well as the profession, are commencing to realize the fact that flies and mosquitoes are not only exceedingly unpleasant companions, but each is also a serious menace to health.

One of our Toronto papers, the *Mail and Empire*, recently published an article on the house fly, and stated (quite correctly) that an outbreak of typhoid fever in Trenton, N.J., was attributed to house flies. It has been known to the profession for some time that the fly carries typhoid germs, tubercle germs and other infectious bacteria, and distributes them over our food. We are told that one investigator found 100,000 bacteria on the legs

of one fly. We are told by Dr. Lindley, in an address delivered by him before the National Conference of Charities and Correction at Richmond, Va., that Dr. Daniel D. Jackson says the common house fly causes 7,000 deaths annually in New York City.

Our careful housekeepers have been in the habit for many years of fighting the fly in various ways. The old-fashioned fly paper is found to be of but very little use. They depend largely now on the use of screens, and keeping their rooms as dark as possible. If the room is kept dark and small apertures are left the flies will leave the darker room for lighter quarters.

We fight the mosquito in various ways, but chiefly by screens, nets, smoke (smudge) and anointing our faces and hands with some oil preparation, but generally speaking the mosquito beats us in the long run.

It is somewhat remarkable that in a city like Toronto they are increasing rapidly, and we have no doubt that during last year our citizens, but especially young children, suffered more from this pest than for many long years before. The menace to delicate young children is very serious, and the poison from the mosquito sometimes causes death.

We hope that the laity will soon learn that the important method of fighting these serious pests is the adoption of methods of prevention. The flies come from accumulations of filth, and the mosquitoes from foul, stagnant waters. Ordinary cleanliness about our premises and ordinary drainage of all ordinary pools will abolish house flies and mosquitoes.

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### LISTER'S WRITINGS.

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Lord Lister was 82 years of age last 4th of April. It will probably be remembered by most of our readers that some time before he had completed his 80th year many of his friends were anxious to convey to him on his birthday some token of their admiration and affectionate regard for him. On the suggestion of Dr. C. J. Martin, Director of the Lister Institute, a republication of all his scientific papers was decided upon. The following

Committee was appointed to collect and publish all his original papers: Sir Hector Cameron, Sir Watson Cheyne, Mr. Rickman Godlee, Dr. C. J. Martin, and Dr. Dawson Williams. Of these gentlemen three were intimately associated with Lister in his surgical work. Sir Hector Cameron was his dresser, then his house-surgeon, and afterwards his colleague. Sir Watson Cheyne was his house-surgeon first at Edinburgh and then at King's College, London, where later he was his colleague.

We are told by the *British Medical Journal* that the Committee had the advantage of Lord Lister's help, and has done its work with a reverent care worthy of the object on which it has been based. The introduction which they have contributed is a masterly summary of Lister's work, in which the sequence and relation of his varied researches are clearly pointed out. This collection of Lister's writings has now been issued from the Clarendon Press, Oxford. The work is published in two volumes. Price, two guineas.

The writings are arranged under four main heads—Physiology, Pathology and Bacteriology, the Antiseptic System, and General Surgery. Some special addresses and lectures, which could not fittingly be placed under any of these headings, are given a fifth heading at the end of the second volume.

The *Journal* also tells us that the papers in each of the five parts are arranged chronologically, and the reader is thus enabled to follow the evolutions which are culminated in the present methods of septic and antiseptic surgery. The *Journal* goes on to say: "Listerism, it must be repeated, is not a system of dressing, but a principle. That principle is the exclusion from the wound of all agencies which have the power of causing putrefaction. So far from the aseptic system being, as is still said by some, the negation of antiseptis, it is the logical outcome of the principle on which the antiseptic system was based."

We are glad to be able to say that Lord Lister is now enjoying fairly good health, although his naturally strong constitution has been to some extent enfeebled by rather serious attacks of influenza in recent years.



## NOTES.

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The Sixth Annual Meeting of the Graduated Nurses' Association of Ontario was held in Toronto, May 22nd.

The Annual Meeting of the American Medical Editors Association was held at Atlantic City June 5 and 7.

The International Congress of Nurses will be held in London, England, in July. We are glad to know that there will be a large representation of Nurses from Canada, including Lady Superintendents of General Hospitals.

It is announced that Mr. John Beresford Leathes, M.B., B.Ch. Oxon., F.R.C.S. Eng., Lecturer on Physiology at St. Thomas' Hospital Medical School, has been appointed Professor of Chemical Pathology in the University of Toronto. Mr. Leathes, in addition to his appointment at St. Thomas's Medical School, has also been in charge of the Laboratory for Pathological Chemistry at the Lister Institute.

Dr. William Engelmann, Professor of Physiology in the University of Berlin, and distinguished for his researches into the neuro-muscular mechanism of the heart, died on May 20, at Berlin, at the age of sixty-five. Professor Engelmann was professor at Utrecht before his removal to Berlin.

Dr. Edward Liveing has resigned the Registrarship of the Royal College of Physicians of London, which he has held for twenty years. The Council of the College has placed on record its appreciation of the devotion and energy with which Dr. Liveing discharged the duties of his office during so many years.

In a recent address to the Psychiatric Society of Tokio, Dr. Lilienstein stated that he had found many of the Japanese hospitals constructed after German models, and well managed, but that he was astonished to find apparently no provision made for the insane. According to his calculations, there should be among the 50,000,000 inhabitants, at least some 750,000 demented persons who should be in asylums; but even taking into account the private places, there is room only for about 2,000. Notwithstanding its wonderful army medical service, Japan seems to be very backward in comparison with Europe and America in this important department. As regards the different varieties of mental diseases, there seems to be little difference between Japan and our own country.

## Personals.

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Drs. F. A. Drake and H. Meek, of London, leave the latter part of this month to attend the Budapest Congress.

Dr. A. W. Macpherson has been appointed Medical Health Officer and City Physician of Peterboro in the place of James Bingham, resigned.

Professor William Osler remained a few days in Toronto after delivering his address before the Ontario Medical Association, and sailed for England June 12th.

Drs. O. M. Jones, of Victoria, S. T. Tunstall, Vancouver, and J. M. King, Cranbrook, are delegates to the International Medical Congress from the College of P. and S. of British Columbia.

Miss Kilgoure, a graduate of the Class of 1892 (T.G.H.), who lived in Cincinnati for many years, has been appointed assistant superintendent of the Training School for Nurses, Toronto General Hospital.

Dr. James S. Sprague, after a very successful practice of over thirty-five years at Stirling, has removed to Perth. The doctor is well known as a contributor to journal literature and is the author of "Medical Ethics and Cognate Subjects."

The following physicians have been elected officers of the Canadian Purity Education Association at its Annual Meeting held June 18th: Dr. A. D. Watson, President; Dr. J. E. Hett, 2nd Vice-President; Dr. W. J. Fletcher, 3rd Vice-President.

We learn from Dr. J. N. E. Brown, Superintendent of the Toronto General Hospital, that a series of Clinics has been established at the Hospital. A number of cases are shown every Saturday morning at 10.30, and some member or members of the Staff will make clinical remarks on the cases. These clinics are open to all members of the medical profession.

Drs. H. A. Bruce, G. S. Ryerson, H. Harris, A. McPhedran, A. Primrose and W. H. B. Aikins, of Toronto, leave for Europe this month. They are accredited as delegates to the International Congress at Budapest.

It is expected that Drs. H. S. Birkett and F. Shepherd, of Montreal, who have left for England, may also attend this meeting.

We learn from the *Canadian Journal of Medicine and Surgery*, that Dr. Roy Thomas, assistant to Dr. N. A. Powell, and Dr. Harold Clark, son of the Dean of the Medical Faculty of Toronto University, have, after competitive examination, been appointed to the House Staff of the City Hospital on Blackwell's Island, N.Y. Among other gentlemen appointed were two from Hartford, two from Johns Hopkins, two from Columbia, and one from McGill University.

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## Obituary.

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### J. N. ANDERSON, M.D.

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Dr. Anderson, of 5 College Street, died suddenly of apoplexy June 10th, aged 65.

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### GEO. LLOYD MacKELCAN, M.D.

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Dr. Geo. MacKelcan, of 110 N. Catherine Street, Hamilton, died June 9th, aged 74. He graduated from McGill College in 1860, that is, fifty years ago.



## INTERNATIONAL CONGRESS OF MEDICINE AT BUDAPEST.

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We have received from the Grand Secretary of the Grand Lodge of Canada a copy of an invitation from the Grand Secretary of the Grand Lodge of Hungary to meet any brethren who may attend the International Medical Congress at Budapest in August and September next. The substance of the invitation is as follows: "From August 28th to September 4th, there will be held at Budapest the Sixteenth International Congress of Medicine. Thousands of physicians have announced their intention to attend, and we hope that many brother Masons from Canada will also be at the Congress.

"In order to proffer the visiting brethren our fraternal greetings, we have arranged a solemn meeting. At this meeting we will take up the history, development and organization of Hungarian Freemasonry.

"In order to facilitate our effort to greet the brethren from all parts of the world, we would request that all lodges working under your jurisdiction extend this invitation in our behalf to any members who contemplate attending the Congress, and ask them to advise the Symbolic Grand Lodge of Hungary, through the medium of their respective lodges, in addition to personally informing the office of the Congress.

"Many of the physicians who are active in the direction of the Congress are also members of the Grand Lodge, and they will do their utmost to render assistance to visiting brethren, procuring comfortable lodging, and doing everything possible to render their visit agreeable, that they may return to their homes with the best impressions and fortified in the fraternal love which unites all the Freemasons of the world.

"Visiting brethren are requested to come prepared with regalia, and to address their certificate of membership to Otto Trautmann, Vi. Podmaniczky St., Nr. 45, Budapest, Hungary.

(Sgd.)

BAKONYI,  
Grand Secretary.

DR. ARPAD, of Bokay,

Professor of Pharmacology, University of Budapest, Grand Master.

*(The Canadian Craftsman.)*

## Meetings of Medical Societies.

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### THE CANADIAN ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS.

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The ninth Annual Meeting of the Association was held May 19th and 20th at Hamilton. Two sessions were devoted to general business, consideration of reports and election of officers.

On the first afternoon the Association was addressed by Dr. Wm. Charles White, of Pittsburg, Pa., on the subject of "Municipal Supremacy in Tuberculosis." It was an address replete with interesting points, and the manner in which the fight is being waged against the disease in Pittsburg elicited hearty applause.

It was well for every city to find out the amount of tuberculosis within its boundaries and then commence a systematic attack on it, not letting up until the foe was conquered. The city should look at the question in a purely businesslike manner, and as a business proposition. Until the city took up the struggle in that way, there was a small chance, indeed, of the fight being successful. In the disease there were many things to be considered besides the victims being made well—there was the protection of others, the protection of the children of all the homes. Tuberculosis, it had been ascertained, was to be found in every person to some extent. The State of Illinois was interested in the matter, and it had ascertained that it was paying \$1,200,000 per year in educating children who died of tuberculosis before they reached the age of 18 years. That was a startling figure, but there was a way to reduce the cost to a yearly minimum. People sat down selfishly in their arm chairs and paid no attention to the disease, but just as soon as a member of their family became affected they would be the first to demand why such things were allowed to exist. The reason the question had not been taken up systematically by municipalities was that it was nobody's business. The responsibility was with three groups—the state, the municipality and charitably inclined people. Those three should get together. Another thing that should be advocated was 'play-grounds for the children.

The speaker thought that a municipality should have a central officer—the entire business of fighting the disease centralized in one office. It was the business of a city to carry it on.

there. One of the frequent things, however, was that a city health officer was a political officer and the office was frequently held there for life by men who had no business to be there.

He pointed out that where hospitals where incipient cases were treated were concerned, the patients could not be turned out suddenly to do a full day's work. They had to be given work gradually, say, fifteen minutes the first day, and so on. Each individual in the sanatorium owed something to the state for the education he received about the disease, and it was economically wrong to keep them in such institutions for nothing. He thought the problem was best provided for by the establishment of farm colonies, where the patients could be given easy work until they had arrived at that condition where they were fit to go out and do a full day's work.

To the speaker, there was nothing more important in that connection than the outlook for the future, and to that end he advocated each municipality being saturated with knowledge of the disease and its workings. He had very little sympathy for meetings drummed up for special occasions. Each adult person had his or her own ideas about tuberculosis, and it was next to impossible to change those ideas. But in the schools and Sunday schools all municipalities had the making of the future municipalities, and without much expense the children could be educated about the dangers of consumption, day after day, year after year, until they were made to understand the disease and its dangers—saturated with knowledge of it. And what they said in their homes might influence their parents, so that all along the line more care would be taken and better measures promulgated for the prevention of the disease. In ten years, were those measures followed, the entire community would be saturated with an all-important knowledge of tuberculosis, and the worth of that knowledge could not be over-estimated. That was being done in Pittsburg, and the idea was to get the city to take over the work. In that connection a health officer must sink his personality, and no names should be allowed to get into the newspapers. It had been found that the press was always open to fair and frank dealing, and he considered that the press was a potent factor in the fight, along with the profession. In Pittsburg, after securing the consent of the 37 school trustees to introduce the subject into the schools, the sanatorium people had got the clergy together, and through that source had given the fight an added impetus. The public mind was being educated, and by that education the public was being made to understand that the medical profession was not the stumbling-block which it thought it to be.



The speaker said he had not been in a hospital in Canada where they took proper precautions against tuberculosis. They said that they did not admit tuberculosis patients, yet they admitted operation and maternity cases without a murmur. Furthermore, the nurses were not instructed in the nature of the disease. In Pittsburg the hospital nurses had been given that instruction. Sputum cups had been installed at every bedside in three hospitals, no matter what the malady. The nurses were next tackled. But it was not the fault of the nurses so much as of the authorities of the institutions which undertook to instruct them. Then the sanatorium officials had got after the orphan asylums, the asylums for insane and other institutions. So far as the insane were concerned, the patients could not be made to understand the danger of the disease, and the only course open was to segregate them. Visitors and doctors and nurses were exposed at such places unless care was taken along that line. But it should be understood that tuberculosis patients were not dangerous if they were properly cared for. He asked his hearers to banish that fear from their minds.

The sickly children in the Pittsburg schools were also being looked after. The city is going to build a \$5,000 open-air school for them, and possibly provide them with milk and rolls at 11 o'clock every morning to keep up human resistance. One of the most important things was to keep up human resistance. A hospital had also been established for confinement cases. The speaker advocated the municipal supervision of the milk supply, and in the summer months the pasteurizing of all milk in the homes. In concluding his talk about Pittsburg, Dr. White said it was the custom of the sanatorium authorities to use the mails in their campaign against the disease, setting forth the facts as pertinently and concisely as possible in pamphlet form.

So far as Ontario was concerned, it seemed to him that Mr. Downey's bill should have passed. But the legislators could not be asked to pass what they could not understand. The way it should be done was to arouse public opinion, and then the Government would do what the people wanted. He suggested that the people in Hamilton should get systematically working in a campaign against the disease, and then the Government might follow suit. It was a municipal work, but the Government could give dollar for every dollar raised locally. He pointed out that subscriptions could be raised to engage a man with brains as a central officer. The central officer could then go to some large American city and see what was being done there in the fight. He would then return and the fight would be on. But it must

be done on a central office basis, and on the strength of that the municipality could apply to the Government for aid. The money so spent would be returned in later years by a thousand-fold. In conclusion, Dr. White stated that the crowning achievement of the sanatorium officials in Pittsburg had been the securing of the appointment of a municipal health commission.

There was a brief discussion on the address, and Dr. White was tendered a hearty vote of thanks.

#### ECONOMICS AND SUCCESS IN THE TUBERCULOSIS CRUSADE.

At the evening session Prof. Adami, of McGill University, spoke on "Economics and Success in the Tuberculosis Crusade" to an audience which completely filled the auditorium. He spoke of the present knowledge of tuberculosis, and of the practical application of that knowledge in stamping out the disease. The problem he considered essentially a pecuniary one. The main data or factors in the problem he stated thus:

"The infection is singularly widespread throughout the community. It is conveyed in the main from individual to individual, but only when the disease is what we may term open—that is to say, when it attacks the lungs and provokes a discharge of bacilli—is it within the limits of the possible to eradicate the disease. That being so, what are the more economic methods? How can we insure thorough action with the least cost to the community? For, admittedly, if the disease and the danger of infection be so widespread, the cost of eradication cannot but be a very serious matter. The disease is so widespread that, save for the benefit of the individual, it is useless to keep data of individual cases; so many centres of infection are thereby left untreated that no material benefit accrues to the community at large. The magnitude of the problem and of the work before us is appalling, and it is necessary that at the outset we should realize it.

"A large general hospital post-mortem examination here in Canada reveals that every other case shows evidence of having been infected with tuberculosis. The observations of Nageli and others show that in certain crowded communities of the old world practically every individual who attains to the age of 30 bears evidence, slight or extensive, of having been affected. I do not believe that here in Canada conditions are quite so extreme. It is amply sufficient for present purposes to be able to lay down positive evidence that here at least one out of every two adults has experienced a tuberculosis infection. The Canadian census of 1901 gave a mortality of 18 per 10,000 of the population from

consumption, and, as pointed by Dr. J. H. Elliott, of our present population of 6,500,000, over 777,500 are destined ultimately to succumb to the disease. Montreal statistics for the year 1908 give 945 deaths, or over 10 per cent. of the total mortality. The problem before us in Montreal is, leaving out of account altogether the cases of arrested tuberculosis, how are we to deal with 2,800 active cases of the disease? Is it possible to accomplish anything? Those cases, it will be seen, divide themselves into two groups—those in which the arrest of the disease is still possible and those that are incurable. The treatment of these groups is very different.

“ Thus in the first place we have in Montreal, a community of between 400,000 and 500,000, at least 2,800 cases of active consumption. Naturally, our first thought upon establishing the League was that we should embark upon the sanatorium treatment. We knew how effective this was. A very short study of the problem showed us that to cope with the disease by means of sanatorium treatment was out of the question. The initial cost and the yearly expense would be far and away beyond what either the Provincial Government, the city government or the charitable institutions or all of them combined could be expected to offer. The only course open to us at first appeared to be a campaign of education. We compiled and distributed by the thousands leaflets in French and English, instructing the community as to the nature of tuberculosis and best methods for its prevention. Possibly we frightened some people; possibly for a time some of those already suffering suffered yet more, in fear for those in their neighborhood not affected. Nevertheless, we made it our object to proclaim, first and foremost, that the disease was curable, and, secondly, that with care on the part of the patient, infection is easily prevented. Thus, we feel now that the first step has been accomplished. We very soon realized that this was inadequate, and the sanatorium method of procedure being ruled out on account of expense, we looked about to determine upon a practical course to take to aid those in the earlier stages of the disease. We determined to establish a tuberculosis dispensary. Such a dispensary we found could be run at a very moderate expense. We worked in co-operation with our city Board of Health. From it we received reports of every case of death from the disease, and also the services of one of the health inspectors, who was detailed to visit every home where a death had occurred, to disinfect, and report upon conditions there if necessary, and provide the family with literature. The city doctors were invited to report to the dispensary all known cases



of tuberculosis, more particularly among indigents. The general hospitals, which do not accept consumption cases into their wards, co-operate by sending such cases to attend the dispensary, and city doctors are invited to send their indigent patients for treatment, and as the work of the dispensary has become more widely known, patients with long-continued coughs present themselves for examination. The work accomplished has grown steadily, until accommodation is altogether too restricted, and now at the psychological moment generous donors, Col. Burland and his sisters, have presented us with a fully-equipped building, admirably situated in the centre of the city, which we hope to open in the early fall—a gift which will certainly represent not less than \$50,000.

“But will a campaign of popular education or dispensaries master the disease? The dispensary can, it is true, ameliorate the condition of the patient in the earlier stages of the disease; it cannot cure. What it can accomplish is this: Through its inspectors it can detect the chief danger spots in the city, the region of overcrowding where whole families live in a single room, or those most fatal centres of infection—the dark rooms without windows opening up on the exterior, and without adequate ventilation. It can be a potent factor in rousing public opinion and doing away with those hot-beds of infection. But this is not sufficient. The dispensary, as such, has no means of dealing with cases in which the means of a family forbid a patient from being isolated. Unless he is isolated, unless he sleeps in a separate room, the rest of the family is constantly exposed to danger. I do not hesitate to say that these cases constitute the gravest problem in the whole situation. Could we effectively isolate the sick from the well, we would remove the great source of infection. It is sheer impossibility to segregate all. Think of the cost of building and maintaining a hospital for 2,800 people. Even to provide for 100 male and female patients, to give each three months’ treatment—and that is inadequate—would, cost of building apart, if the sanatorium were run at ordinary hospital rates, demand a yearly expenditure of more than \$70,000. This consideration of cost alone absolutely bars the sanatorium method as a wholesale system of solving the tuberculosis problem. The same considerations rule out the cheaper so-called shack system, even though the initial cost of building and some items of the cost of maintenance are very materially reduced to the extent that wooden huts are cheaper to build and maintain than modern hospital buildings. There is, however, no material reduction in the cost of food or of the staff.

“ I am arguing, you will see, not against the sanatorium as such, but against the sanatorium as an unduly expensive and, in fact, an impossible method of fighting the disease at large. There is, I believe, no better method of treatment for those who can afford or whose friends can afford it, than to undertake a six or nine months’ treatment. I would, in passing, call attention to the one great difficulty of running a sanatorium—that of not adhering to the primary object of such an institution of treating curable diseases. If the bowels of compassion of the committee of management be stirred, or political influence be brought to bear, there is terrible danger that the institution will become filled up with hopeless cases, so that, instead of being a sanatorium, it becomes a hospital for incurables. Inasmuch as patients who should be treated at such an institution are absolutely indigent, I hold that the state and the municipality are bound to make provision for their maintenance. Private effort and charity have abundant field to exercise in other directions.

“The last few years have seen a notable advance, and it has become fully realized that home treatment is perfectly feasible and possible in crowded cities, like New York. Then, there is the class method. This was introduced by Dr. Joseph Pratt in connection with the well-known Emmanuel Church of Boston. It has, in our opinion, the most in its favor and the least against it. It encourages a patient with hope and confidence; it interests the largest number of individuals in the work of arresting the disease; it presents excellent results, and finally it is the least costly, and comes within the range of practical politics. To those not acquainted, let me rapidly indicate the broad outline of the scheme. As regards the treatment, it resembles the first method in that it is conducted at the patient’s home, but has these peculiar features. A given congregation assumes responsibility of the treatment of from ten to fifteen early cases of tuberculosis, appoints a committee to have charge of financial arrangements and to take a personal interest in the patients and their families, a doctor to investigate and to choose the cases, and a nurse to visit and instruct them. Only these patients are accepted for the class who promise solemnly to carry out the treatment in all its details. Failure to do this entails dismissal from the class. When the condition of the patient has become satisfactory, he joins with the other members of the class in meeting the doctor and the nurse once a week in some room provided by the congregation. Here, each in turn reports the number of hours spent in the open air during the week, weights are taken, the gains com-

pared, and a pleasant hour spent comparing notes of progress. Emmanuel Church, Montreal, has followed the example of its namesake in Boston, and has established the first class of this kind in Canada. I would add that the patient so treated should be encouraged to regard expenditures made by the committee as a loan, to be paid back in installments when his health has been regained.

"It must be realized that incurable cases are the most dangerous. They can be rendered harmless when they can be given a room apart, when the bed linen can be boiled and sterilized. When these things are not possible, then for the safety of the community the only place for them is in the hospital for incurables. Here, as with the completely indigent early case, I hold that the care of these patients is not a matter for private charity, but devolves upon the state and municipality. The municipality, whether aided by the state or not, is responsible for the care of these, as for all other highly infectious cases."

After Dr. Adami's address, the medical men in attendance at the meetings were the guests of the Hamilton Medical Society at the Hamilton Club. After supper had been served, Dr. J. Heurn Mullin, President of the Society, took the chair, and an informal discussion took place on the medical treatment of tuberculosis, led by Dr. Adami and Dr. White.

At the final session of the Association on Thursday morning, the subject taken up was "The Responsibility of the People in the Tuberculosis Crusade," opened by a paper from Dr. R. J. Lockhart, of Hespeler, and discussed by Dr. J. D. Lafferty, Dr. R. M. Simpson, and Mayor Dingman, of Stratford.

The following officers for the ensuing year were then elected, as follows:

President—Prof. J. G. Adami, Montreal.

Vice-Presidents—Hon. Senator Edwards, Ottawa; H. H. Miller, M.P., Hanover; William Southam, Hamilton; James Manuel, Ottawa; Sir J. A. Grant, Ottawa; J. G. Rutherford, Ottawa; G. H. Perley, Ottawa; Hon. Senator Beique, Montreal; Col. Jeffrey H. Burland, Montreal; Dr. J. A. Hutchison, Montreal; Dr. Gordon Bell, Winnipeg; Hon. W. R. Motherwell, Regina; Hon. W. H. Findlay, Edmonton; Dr. L. Laberge, Montreal.

Treasurer—George Burn, Ottawa.

Secretary—Rev. W. Moore, D.D., Ottawa.

Executive Committee—Bishop Hamilton, Sir Hugh Graham, Hon. F. A. Lawrence, J. W. Daniels, M.P., Dr. R. W. Bruce Smith, Dr. J. H. Elliott, Dr. R. M. Simpson, Rev. T. Hunter Boyd, Dr. Lafferty, Dr. C. J. Fagan.



The meeting agreed to meet next year in Montreal.

On Thursday afternoon a visit was paid to the Mountain Sanatorium, where the guests were received by Mrs. Crerar, J. J. Evel, and Dr. Holbrook, the resident physician. This Sanatorium, which cares for the incipient cases of the City of Hamilton and the County of Wentworth, is an almost ideal institution, and shows what can be done in any municipality to provide for its tuberculous cases. It is but a part of a complete work now organized by the municipality and the Hamilton Health Association, whereby poor patients in any stage of the disease are sought for and cared for, including medical inspection of schools, a dispensary in the city, the Sanatorium for early cases, and a hospital just completed on the grounds of the city hospital for the care of advanced cases.

The meeting was one of the most successful yet held, and under the presidency of Dr. Adami the Association is bound to make a great forward step during the year.

J. H. E.

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### Bromide Eruption.

Knowles summarizes his article in the *New York Medical Journal* as follows:

1. Bromide eruption may occur in those who are susceptible, independent of the dose of the drug or the length of the administration. The larger the dosage, and the longer the ingestion, the greater is the chance of an outbreak.

2. There are practically no constitutional or subjective symptoms in most cases.

3. Because of the slow elimination, the eruption may continue to appear for some weeks after the drug has been discontinued.

4. Almost any type of eruption may be present; in childhood the lesions are usually larger and more persistent than in adult life. The extremities and the face are the parts most frequently attacked; the most extensive eruption, in the majority of the cases, occurs on the legs.

5. Lesions have a great tendency to occur at points of previous inflammation, such as on vaccination scars or injuries.

## Book Reviews.

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TRANSACTIONS OF THE AMERICAN PEDIATRIC SOCIETY. Twentieth Session. Held at the Water Gap House, Delaware Water Gap, Penn., on May 25th, 26th and 27th. 1908. Edited by Linnaeus Edford LaFetra, M.D. Volume XX. Reprinted from *Archives of Pediatrics*. 1908-1909. E. B. Treat & Co., Publishers, 241-243 West 23rd Street, New York. 1909.

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BACKBONE. Hints for the Prevention of Jelly-Spine Curvature and Mental Squint. A Straight-Up Antidote for the Blues and a Straight-Ahead Sure Cure for Grouch. Collected from Various Sources and Arranged by S. DeWitt Clough, Ravenswood, Chicago. December, 1908. Price, 50 cents. A very interesting collection of odds and ends.

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THE NAUHEIM TREATMENT OF DISEASES OF THE HEART AND CIRCULATION. By Leslie Thorne Thorne, M.D., B.S. Durham, M.R.C.S. Eng., L.R.C.P. Lond., Consulting Physician (in London) to the St. John's House of Rest, Mentone; late Medical Examiner, London County Council. Technical Education Board. Third Edition. London: Bailliere, Tindall & Cox, 8 Henrietta St., Covent Garden.

A very excellent little book, which in clear language outlines the administration of the Nauheim baths and the Schott exercises. There is also a classification of the cases suitable for treatment.

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PHYSIOLOGICAL AND MEDICAL OBSERVATIONS AMONG THE INDIANS OF SOUTHWESTERN UNITED STATES AND NORTHERN MEXICO. By Ales Hrdlicka. (Smithsonian Institution Bureau of American Ethnology, Bulletin 34.) Washington: Government Printing Office. 1908.

This most interesting volume is of great use to any physician who makes ethnology a hobby. Dr. Hrdlicka's observations would do credit, in their thoroughness and care, to a German research worker. The study of these Indians is most exhaustive, and almost every physiological function has been examined. The work does great credit to the author.

TEXT-BOOK OF GYNECOLOGICAL DIAGNOSIS. By Dr. Georg Winter, O. O. Professor and Director of the Kgl. Universitäts-Frauenklinik in Königsberg, Prussia. With the collaboration of Dr. Carl Ruge, of Berlin. Edited by John G. Clark, M.D., Professor of Gynecology, University of Pennsylvania. After the third revised German edition. Illustrated by four full-page plates and three hundred and forty-six text illustrations in black and colors. Philadelphia and London: J. B. Lippincott Company.

Few books have come to our desk with a greater welcome than this interesting volume. Printed on good paper and well illustrated, the text is in excellent English, and so fully covers the subject that there is nothing more to be said.

The chapter on the microscopic appearance of uterine neoplasms is the best we have ever seen, and shows everywhere the work of a master hand.

Everyone doing any gynecology will find this a very valuable book, and one which has stepped aside from the beaten track.

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TUBERCULIN IN DIAGNOSIS AND TREATMENT. A text-book of the specific diagnosis and therapy of tuberculosis for practitioners and students. By Dr. Bandelier (Senior Physician to Dr. Meicher's Sanatoria for Pulmonary Disease in Görbersdorf) and Dr. Rolphe (Medical Director of the Sanatoria for Railway Employees in Melsuger). Translated from the second German edition by Egbert C. Narland, M.B., B.Sc. Lond., M.D. Berne. Published by John Bale, Sons, and Danielson, Ltd., Oxford House, 83-91 Great Titchfield Street, Oxford Street, London W. 1909.

In this monograph we have embodied practically all knowledge that is of value in respect to Tuberculin. In the first section the cutaneous, ophthalmic, percutaneous and subcutaneous methods of applying tuberculin as a diagnostic agent are fully dealt with: the various locations of tubercular lesions receive attention, and the special peculiarities and difficulties encountered in each group are individually discussed, especial attention being directed to the fallacies encountered. Next, the specific treatment is taken up, the status of tuberculin from the present-day view as a remedial agent, the various preparations used to produce passive and active immunity, not only in the pulmonary organs, but in the other systems, are fully analyzed, and con-



clusions drawn, as far as possible, from the results known up to the present. We most heartily congratulate the authors on their production.

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THE ETIOLOGY AND NATURE OF CANCEROUS AND OTHER GROWTHS.

By W. T. Gibson, A.R.C.S. Published by John Bale, Sons, and Danielson, Ltd., Oxford House, 83-91 Great Titchfield Street, Oxford Street, London W. 1909.

The above is a preliminary analysis of the results of the author's investigations, both original and bibliographical. It is embodied in a neat volume of about 100 pages, and will prove of peculiar interest, especially to pathologists. The various etiological factors, such as local irritation, the results of various occupations, decomposition products, the neurotic hypothesis, etc., have received full attention, as has also the effect of arsenic in regard to the results of its local action on the skin, in addition the X-rays, sunlight, and extremes of temperature, as possible causes of cancer, are dealt with. The author has not confined himself strictly to the consideration of carcinoma, but has included in his researches the benign growths, thus widening the field and taking a more comprehensive view of the whole subject of tumors.

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A banquet given at Philadelphia some time ago in honor of Dr. John B. Deaver, the well-known surgeon, was unique enough to satisfy the most exacting lover of novelty. All the 113 guests were physicians, each of whom had been operated on by Dr. Deaver either for appendicitis or some other serious disease. The fifteen waiters were laymen who had also been patients of Dr. Deaver. The waiters were dressed as Red Cross orderlies, and the punch was served in mannikins, each of which had a miniature knife stuck in it at the spot where the incision for an operation had been made. The banquet hall was beautifully decorated with flowers and plants. Many of the guests came from a long distance to pay their respects to the great surgeon, eleven States being represented. The occasion was a delightful one, and not one of those present regretted the experience that had qualified him for attendance.—*Ex.*

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No. 8

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## Original Communications.

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### THE USE OF MORPHINE AND SCOPOLAMINE IN LABOR, WITH REPORT OF ONE HUNDRED CASES.\*

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BY

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Common humanity urges the medical man to search for some means to ease the pains of labor. Chloroform has done much to relieve the excruciating agony of the latter stage of labor, but it is also true that accidents have followed its use. In many cases it has, without doubt, become necessary to apply forceps, because of its too early or prolonged use. In how many cases obstetricians have yielded to their own impatience and the importunities of the friends and applied forceps unnecessarily it would be hard to say, but it is certain there would be no small number. That there is an increase in the use of forceps in confinement is almost universally admitted, nor is this increase altogether to be explained by the impatience or meddlesomeness of the modern obstetrician. The reason is, we think, to be found in the lessened capacity of the modern woman to bear pain. On this point Prof. Kronig (6) says: "In private practice it is only in the vast minority of cases that the so-called classical indication calls for the application of forceps; by far the largest number of operative confinements is necessitated by nervous exhaustion on the part

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\* Read at meeting of Ontario Medical Association, June, 1909.

of the woman and by the want of will power to bear pain to the end. The classical indication for the use of forceps is eclipsed by the so-called deliverance forceps—the application of which has increased in an alarming manner, especially among women of the better class. . . . I do not think that in this instance it is a case of ‘*furor operativus*’ on the part of the doctor, but in private practice, in contrast with hospitals, we often have to deal with persons of nervous dispositions, who are overcome by such a state of nervous prostration that every normal effort on their part to endure the labor pains to the end is paralyzed.”

The decrease of the birth rate which has been so generally observed in the better classes both of the United States, England, and France, cannot altogether be attributed to the dislike of the care of children, but in part to the dread and horror many women have of the pains of labor.

Any drug then which will relieve or abolish the grinding pains of the first stage of labor without injury to either mother or child should be welcomed by both doctor and patient. That this condition is fulfilled by the combination of scopolamine and morphine is evident to anyone who has given it an extended use or gone carefully into the already extensive literature on the subject. That there are disadvantages or possibly some dangers in its use is not to be denied, but they are those which are inevitable in the use of an anesthetic in the hands of those inexperienced in its use and careless of the dosage. There have been and still continue to be fatalities from the use of chloroform, both from careless administration and idiosyncrasy of the patient. The same may, we think, be said of the use of scopolamine and morphine in obstetric work, but if we can prove there have not been more than with chloroform, we submit that they should be given a trial. We do not propose in this paper to consider the use of scopolamine and morphine as anesthetics except in obstetric work, though they have been used as general anesthetics for a great variety of both major and minor operations by many surgeons. Our own experience has been entirely confined to obstetric work.

In 1900, Schneiderlin (23), first reported a series of cases in which he had done a number of operations under anesthesia, produced by scopolamine and morphine. Korff (19) and Blos (16), shortly afterwards reported a series of cases. Their method was to give morphine, gr. 1-6 and scopolamine, gr. 1-100, four hours before an operation, repeat in two hours, and repeat again one half-hour before operation. In some cases they gave as high as 1 gr. of morphine and 1-6 gr. of scopolamine, so that it is not to be wondered at that there were a few fatal cases, though sur-



prisingly few considering the dose. It is to be noted the difference between the doses they used and those considered necessary in ordinary obstetric work.

The pharmacological action of scopolamine has been rather fully investigated by Stella (17), Kochman (18), Webster (12) and others, but we are sorry to say with rather contradictory results. The reason of this is probably because of the rather peculiar idiosyncrasy that the animals generally used in experiments have to the action of scopolamine or the allied drugs atropine, duboisin, etc. It has been found by these experiments that dogs will stand enormous doses of these drugs without apparently any bad effects, while on the contrary man seems, in some cases, to be peculiarly susceptible.

As an example of how resistant dogs are to hyoscyne and atropine, we might mention an experiment performed in conjunction with Dr. Webster. We injected into the vein of a dog of fifteen pounds, hyoscyne, gr. 1-100; five minutes later gr. 2-100, and five minutes later gr. 4-100; then at intervals of five minutes atropine, gr. 1-20; gr. 1-10; gr. 3-20; gr. 3-10; gr. 6-10, and gr. 1 1-2. At the end of an hour the dog had received hyoscyne, gr. 7-100, and atropine, grs. 2 6-10. The dog recovered, and a week afterwards we gave the same dog 1 1-2 gr. of atropine at one dose. The animal recovered from that, so we killed it with chloroform. Dr. Webster, though, tells us that he has killed dogs with an initial dose of hyoscyne, gr. 1-100. The animals, if they survive the initial dose, seem to acquire an immunity to the drug, and it can be increased at five-minute intervals without much effect.

In man, one case is recorded in which there was a death after administering gr. 1-20 of scopolamine, but in this case there was a high grade of arteriosclerosis.

The combination of morphine and scopolamine no doubt owes its efficiency as an anesthetic, without unduly depressing the circulation, to the supposed antagonistic action of morphine and scopolamine on the respiratory and circulatory centres.

Atropine has long been used as an antidote for morphine poisoning, and, as proven by Webster and other observers, atropine, scopolamine and hyoscyne are practically identical in their action on the circulation and respiration. The reason for the use of scopolamine or hyoscyne, in preference to atropine is, hyoscyne and scopolamine have a more sedative effect than atropine. Quite recently Nicholson (37), of St. Louis, has done a number of experiments on animals. He found that by injecting morphine, gr. 1-4, and scopolamine, gr. 1-100, into a rabbit it produced a deep narcosis followed by recovery in four or five hours. Inject-

ing morphine, gr. 1-2, alone did not produce such a deep narcosis, nor could the animal be operated on as when morphine was combined with scopolamine; when morphine, gr. 1-4, and atropine, gr. 1-100, were injected the narcosis was not so deep as when morphine was injected alone. Atropine inhibits in some degree the action of the morphine. He also found that repeated daily injections of morphine and scopolamine produced no degeneration of heart, liver or kidneys. He found that the toxic dose of morphine and scopolamine corresponds very closely to that of morphine alone, and the autopsy findings in animals which succumb to a toxic dose are as those from morphine.

Though we use scopolamine throughout this paper, it is simply for the sake of uniformity, as hyoscyne and scopolamine are, as is well known, isomeric chemical, and identical in their physiological action, and as a matter of fact in the cases which we report below, it is the hyoscyne tablet of Parke, Davis & Co. which we have used almost altogether.

It might be in place here to refer briefly to the widely advertised tablet of the Abbott Alkaloidal Company of Hyoscyne, Morphine Cactin. They make extravagant claims as to the purity of their drug and the originality of their compound. They claim that hyoscyne made from *hyoscyamus* is the only safe drug to use, and that scopolamine is dangerous, and that the addition of cactin is highly beneficial as a heart tonic.

The absolute falsity and brazen effrontery of their claims was thoroughly shown in the journal of the American Medical Association December 21st, 1907. After quoting from manufacturers' letters and results of chemical and physiological investigation they say in conclusion—as to hyoscyne and scopolamine:

“1. Hyoscyne and scopolamine are synonymous terms for the same alkaloid.

“2. The claim of the Abbott Alkaloidal Company to the effect that the alkaloid it uses and which it calls hyoscyne is purer and safer than scopolamine has no basis in fact, for that alkaloid is scopolamine.

“3. No one connected with the Abbott Alkaloidal Company, or for that matter anyone else, is able to detect whether the alkaloid it sells is made from *hyoscyamus* or from some other plant of the same family. It may be chemically pure or impure, whether marked under the name hyoscyne hydrobromide or scopolamine hydrobromide.

“4. The Abbott Alkaloidal Company, therefore, has been misleading the profession of the United States regarding hyoscyne in its H.M.C. tablets, and has been doing this either deliberately

with the intention of deceiving for commercial gain or from ignorance of well-known facts."

As to Cactin, in the same article they publish the conclusions of Prof. Robt. A. Hatcher, who made some experiments in the Loomis Laboratory, Cornell Medical College, New York. His conclusions are: "These two preparations (cactin pellets of Sultana Drug Company and Abbott's Cactin) are not only devoid of a digitalis-like or a strychnine-like action, but they are inert when used in animals in doses that are hundreds and even thousands of times as large as those recommended by their exploiters."

"To sum up the facts concerning the H.M.C. tablets it may be said that this mixture is nothing but scopolamine and morphine to which has been added an inert secret article called cactin, thus adding mystery to it all and making this well-known and important combination of scopolamine and morphine a proprietary nostrum."

Morphine and scopolamine were first used in obstetric work by Steinbuchel, when in 1902 he reported 100 cases. Since then a great number of cases have been reported, but chiefly by the Germans. Most notable among these is Professor Kronig, of Frieburg, who has reported 1,700 cases in which these drugs have been used, and he is very enthusiastic in its favor. It is rather remarkable in view of these large number of cases that English and American obstetricians have been so slow in adopting it. In May, 1908, in a personal communication, the Dublin Rotunda report that they had not used it in a single case; the Sloan Maternity, New York, has never used it. Johns Hopkins Maternity in a few cases, but not enough to report.

The only ones in America which we could find who had used it systematically and published results were Dr. Newall, of the Boston Lying-in-Hospital, 12 cases, and Dr. Fenton, of Toronto, 153 cases, and their results have been entirely favorable.

Besides the 1,700 cases reported by Kronig, Preller reports 120, Bunn, 100; Steffen (13), 300; Leopold (27), 200; Bass (36), 107.

The results from the use of this treatment vary greatly, and we are inclined to attribute this lack of uniformity more to the quality of the preparation used than to the method of its exhibition. Kronig's report of favorable results in 1,700 cases is the strongest evidence we know of in favor of this method. Some of his countrymen report very unfavorably however. Giminder (9), in summing up the results, observed in 100 cases at Menge's Clinic in Erlangen declares the method to be dangerous to both the mother and child, stating that serious after-hemorrhage



occurred in five cases, while in twenty-seven others the course of labor was disturbed. He regards the measure as presumably responsible for the death of one child, for serious asphyxia in eleven others and slight asphyxia in twelve. Sinclair (3), though having no personal experience with this method, says: "It may now be said to have received its final condemnation as too dangerous, both for the mother and child, and unsatisfactory in most other respects." We are sorry he does not state in what other respects it is unsatisfactory; it is difficult to conceive of any effect it could have except on the mother or child. As an alternative he suggests morphia-alcohol-cocaine anesthesia. We confess that we have never tried this combination. During residence in Winnipeg General Hospital we have frequently seen accident cases from railroads where alcohol has been administered by the companies and morphine given on arrival at the hospital, and we agree that the patient frequently suffered little pain, and hence shock was not increased. In spite of this fact we prefer not to have the inevitable mental after-effects in our obstetrical cases. To argue against the method in obstetrical cases because he finds it unsatisfactory in minor operations of the puerperium, such as "cleansing septic or pseudodiphtheritic and inflamed lacerations," seems to us to have little force. Steffen (13) says, the woman is not able to control the abdominal pressure, and it is very difficult to protect the perineum. We did not experience any difficulty arising from such a cause, neither did we have to resort to abdominal pressure to aid expulsion, which he says is necessary at times. Kirby's (5) verdict is favorable, and his conclusion is that labor is not prolonged, but that the patient's strength is conserved by the rest secured between pains. Newall (14) also makes the same observation. He says: "The pain of the first stage of labor was such that the strain of the expulsive pains was endured with less reaction than in the ordinary patient, and not being exhausted by the pain of the first stage of labor the patients were able to help themselves more efficiently in the final stage."

In a personal communication from Dr. Brodhead, Obstetrician to the New York Post-Graduate School, he gives us a summary of the results of its use in thirteen cases in his clinic. "The cases were all primipara. In seven cases low forceps operation was done, and less chloroform was required to produce anesthesia to the obstetrical degree. Slight delirium was noted in two cases, and in one case where the dose was repeated the delirium became marked, her uterine contractions were normal—low forceps were finally used. In one case there was profuse post-partum hemorr-

hage, requiring uterine tamponade. In twelve cases where note was made of the presence or absence of asphyxia, in six there was none, in four slight, in one moderate, and in one deep. We do not recommend its use, but prefer morphine and chloral hydrate. We do not like the occasional delirium, and we are more afraid of the drug than we are of morphine and chloral. We doubt the advantages claimed for the drug."

Butler (2) quotes from 50 observers, having in all 5,121 cases, in which 8 deaths occurred. Only two observers having 92 cases gave a verdict of "bad." K. Myer (1) in 50 cases summarized his results thus: In but 2 cases was there interference with regular contractions, in 70% there was no hemorrhage, in 24% it was slight, and in 6% it was severe. There was vomiting in 2 cases. In 46% there was complete effect, in 42% fair effect, and in 12% no effect. As to the effect on the child, there was slight delay in establishing breathing in 3 cases. In one case the child was dead with two turns of the cord about the neck, but at autopsy was found to have a large thymus.

We have used scopolamine in 100 cases. The first case in which it was tried (J. H.) was a primipara, aged thirty-eight years. It seemed to be of such benefit in this case we were encouraged to give it further trial. A rigid os seemed to dilate more readily, and this while the patient was in comparative ease. A little chloroform was administered just when the head was born. There was no laceration, and no ill effects on the mother or child.

Operative interference was necessary in 17 cases, 3 occiput posterior, 2 eclampsia, 1 where membranes ruptured 48 hours before pains commenced, 1 in a Jewess who had taken absolutely no exercise after the fifth month, and one in a primipara aged 32. In the remaining 92 cases low forceps were used nine times. On this point Newall says that with the use of these drugs operative interference is lower than usual without their use, having had 14 forceps cases out of 123 patients.

Our method has consisted in using hypodermic tablets, the drugs being in separate tablets. The initial dose of morphine sulphate, gr. 1-4, and hyoscyne hydrobromide, gr. 1-100, is to be given when dilatation has well commenced and the contractions are occurring at intervals of five to seven minutes. The room is then darkened and made as quiet as possible and the patient allowed to sleep. In the majority of cases after a period of one to two hours' rest the patient wakes with each pain, only to drop off to sleep again after the contractions have ceased. If the patient wakes completely a second dose of hyoscyne hydrobromide,



gr. 1-100, is given, except in neurotic cases where in a few instances the morphine is repeated either with the hyosine or alone. In this class of patients there may be some incoherent talking, accompanied by flushing of the face, but we have found no real difficulty or danger connected therewith. This has been noticed by various writers with similar conclusions. We do not endeavor to secure surgical anesthesia. What we do aim at is such a condition that the patient does not remember what happened after the drugs were administered. This was secured in about 20%. In one case forceps were applied (C. H. V.) without the administration of any other anesthetic. In about 70% the patient rested quietly for some two to four hours, then awakened with each pain, only to doze off to sleep again between pains. In about one-fourth of these cases a little chloroform was used at the time of the expulsion of the head.

The drug is not administered when labor is well commenced, and neither is it administered in precipitate cases. We agree entirely with the opinion expressed by Fenton in a private communication, who says: "Do not give within two hours of delivery, withhold after membranes rupture if there is moderate dilatation of the os and when the cervix is completely dilated even though membranes be intact. If labor be progressing unusually rapidly better give chloroform instead." The objection to the late administration of the drug is twofold; first, the anesthetic effect continues too long on the mother after labor is terminated, and second, it is in such cases that difficulty is found in resuscitating the child.

*Effect on the Mother.*—Apart from the slight mental disturbance already noted, and which was of no consequence, no untoward symptoms were observed. Labor was not interfered with, no cases of post-partum hemorrhage occurred and no untoward after-effects were observed. Rather was it our opinion that in proportion to the success of the anesthesia was the patient freer from symptoms frequently observed in other cases of more or less nervous exhaustion. In one case an observant nurse gave the unsolicited opinion that the patient recovered much more quickly from the effects of labor than in cases in which the drug was not used.

Newall (personal communication), speaking of the results found in his clinic, says: "I have seen no bad results in any of the cases in which it has been used under my supervision, but some of my colleagues will claim that they have had unfortunate results, though as far as I can ascertain there has been no increase in unfortunate symptoms in the cases in which scopolamine has



been used over what we used to meet from time to time before scopolamine was heard of."

*Effects on the Child.*—Two premature children where labor was induced for eclampsia were born dead; one child in occiput posterior with a prolapsed cord was born dead, and one child was dead about four or five days before birth. All others were born alive and no difficulty was experienced in having to resuscitate the child, except in the case of the Jewess mentioned above. Here difficulty was met with, but it finally came to all right. No other ill effects were observed.

In conclusion we wish to say that we find morphine and scopolamine, when carefully administered, will safely alleviate consciousness of the pains of labor and in many cases abolish any remembrance of pain.

We have observed no bad effects on the mother, though there may be minor symptoms as delirium, flushing of face, etc.

We have observed only one case in which there was some asphyxia of the child, and in this case the symptoms were not dangerous.

We do not think that labor is delayed, but rather that the time is lessened, but we have not had enough cases to judge on this point.

We think the drug should be used only when the patient is in a hospital or is attended by a good trained nurse, this not because we regard the method as a dangerous one, but because the sympathizing friends would not allow the patient to be quiet enough to get the full benefit, and in addition to this the bystanders would be very much alarmed at the little mental disturbance which occasionally occurs.

#### BIBLIOGRAPHY.

1. Myer, K. S. Tockel's Clinic, Marburg. "Skopolamin-Morph." Zeit. F. Gyn. No. xxi., 1908.
2. Butler, George F. Hyoscine Anesthesia in Obstetrics, *American Journal of Obstetrics*, August, 1907, page 171.
3. Sinclair, Sir W. J. Analgesia vs. Anesthesia in Obstetrics, etc. *The Lancet*, London, May 30th, 1908, page 1541.
4. Zuntz, Dr. L. Ueber die Skopolamin-Morphiuminjektionen mit besonderer Berücksichtigung ihrer Anwendung in der Gynakologien. Geburtshilfe. *Deutsche Aerzte-Zeitung*, February and March, 1908.
5. Kirby, F. B. "Hyoscine Hypodermic Anesthesia." *New York Medical Journal*, November 2nd, 1907.

6. Kronig. "Morphine-Scopolamine Anesthesia in Labour." *British Medical Journal*, September 19th, 1908.

7. Veit, J. "Ueber den wert der Narkose bei der Geburt." *Therapeutische Monatshefte*, Berlin, December xxii, No. 12.

8. Buist. "The Use of Hyoscine-Morphine Anesthesia in Labour." *British Medical Journal*, September 19th, 1908.

9. Gminder. "Morphium Skopolaminarkose in der Geburtshilfe." *Beitrage Zur Geb. und Gynaek*, Leipsic, xii, No. 2.

10. Fenton, Frederick. "Anesthesia in Labour." *Canadian Journal of Medicine and Surgery*, 1907.

11. Kronig. "Scopolamine-Morphine Anesthesia in Obstetrics." *Deut. Medizinische Wochen-schrift*, May 21, 1908.

12. Webster, W., M.D., C.M. Notes on the Action of Atropine, Hyoseyamine Hyoscine, Scopolamine, Duboisine and Daturine. *Journal of the Winnipeg Medico-Chirurgical Society*, 1906-1908, page 83.

13. Steffen, W. "Deliveries Under Scopolamine-Morphin." *Arch. F. Gynakologie*, lxxxi No. 2. Abstracted in *The Journal*, May 25th, 1907, page 1821.

14. Newall, F. S. "Scopolamine-Morphin Anesthesia in Obstetrics." *Surgery, Gynecology and Obstetrics*, August, 1907. Abstracted in *The Journal* September 14th, 1907, page 969.

15. Emil Ries. "Scopolamine-Morphin Anesthesia in Gynecology." *American Journal Obstetrics*, February, 1908.

16. Bloss. Ueber die Schneiderlinsche Skopolamin-Morphium-narkosa. *Beitrage zur klinischen Chirurgie*. Bd. xxxv. Heft 3.

17. Stella. Etude pharmacodynamique de la Scopolamine et de l'Hyoscine. *Arch. internat. de Pharmacodynamie et de Therapie*. Bd. iii, 1897.

18. Kochmann. Beitrage zur Wirkung des Scopolaminum hydrobromium. *Ebenda* Bd. xii, 1904.

19. Korff. Die Narkose des Herrn Schneideriin *Munch. Med. Wochenschr*, 1901, No. 29.

20. Derselbe. *Munch. Med. Wochenschr*, 1902, No. 27.

21. Derselbe. *Munch. Med. Wochenschr*, 1903, No. 46.

22. Derselbe. *Berl. klin. Wochenschr*, 1906, No. 51.

23. Schneiderlin, Aerztliche Mitteilungen aus und fur Baden, 1900, Mai.

24. Kronig und Gauß. Anatomische und physiologische beobachtungen bei dem ersten Tausend Ruckenmarksanesthesien. *Munch. Med. Wochenschr*, 1907, No. 40, u. 41.

25. Steinbuchel, Vorlaufige Mitteilung über die Anwendung von Sk.-M.-Injektionen in der Geburtshilfe. *Centralbl. f. Gyn.*, 1902, No. 48.

26. Derselbe, Schmerzverminderung und Narkose in der Geburtshilfe. *Wien. Deuticke*, 1903.

27. Leopold, Das klinische Jahr 1906 und die Therapie beim engen Becken zur Rettung des kindlichen Lebens. *Arch. f. Gyn.* Bd. 81, Heft 3.

28. Gaufs, Geburten in kunstlichem Dammerschlaf. *Arch. f. Gyn.* Bd. 78, Heft 3.

29. Derselbe. Die Technik des Skopolamin-Morphium-dammerschlafes in der Geburtshilfe. *Centralbl. f. Gyn.* 1907, No. 2.

30. Derselbe. Bericht über das erste Tausend Geburten im Skopolamin-Dammerschlaf. *Munch. Med. Wochenschr*, 1907, No. 4.

31. Holsbach. Beithrage zum Skopolamin-dammerschlaf in der Geburtshilfe. *Munch. Med. Wochenschr*, 1907, No. 25.

32. Hocheisen. Ueber Geburten unter Skopolamin-Morphium.

33. Bardeleben. Ueber Skopolamin-dammerschlafgeburten. *Verhandl. der Gesellsch. f. Geburtsh. u. Gyn. zu Berlin*, 13 Juli. 1907. *Zeitschr. F. Geb. u. Gyn.* Bd. 59.

34. Hocheisen. Nochmal zu den Geburten mit Skopolamin-Morphium. *Munch. Med. Wochenschr*, 1907, No. 11.

35. Preller. Zur Anwendung von Skopolamin-Morphium in der Geburtshilfe. *Munch. Med. Wochenschr*, 1907, No. 4.

36. Bafs. 107 Geburten in Skopolamin-Morphinhalbnarkose. *Munch. Med. Wochenschr*, 1907, No. 11.

37. Nicholson, C. M. A Study of the Action of Scopolamin-Morphin on the Heart, Liver and Kidneys. *The Journal of Am. Med. Ass.*, April 3, 1909.

38. Landau. Der Tod in der M.-Sk.-Narkose. *Dtsch. Med. Wochenschr*, 1905, No. 10.



## OPERATIVE TREATMENT OF RECENT FRACTURES.\*

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There are few surgeons of experience who have not been dissatisfied with the time-honored methods in the treatment of fractures. Even when every care has been taken in the effort to correct the existing deformity and to bring the ends of the broken bone into apposition, and to immobilize them with some form of retentive apparatus, a skiagraph usually shows very imperfect coaptation of the fragments.

Before the discovery of X-rays, surgeons were justified in doing the best they could with the ordinary methods, but there is no longer any excuse for not recognizing a faulty adjustment. Patients expect that the surgeon will avail himself of every means at his command to bring about perfect results. It is difficult for the surgeon to escape censure if the results of his treatment have been unsatisfactory and disability ensues from faulty union, if an X-ray picture has not been procured immediately after the injury. It is infinitely much better to recognize the situation and explain it properly to the patient beforehand than to have matters plainly explained afterwards by the patient to the embarrassed physician when a suit for malpractice against him is in progress, for the patient will surely have had a skiagraph taken for the occasion, should any deformity exist.

In certain cases of fracture it may be a physical impossibility to properly adjust the fragments of a broken bone without operation. Not that it is invariably necessary or even desirable to replace bones exactly as they were before fracture, but it is much better to do so, provided no undue risks are taken.

A careful examination of the bones preserved in museums and from observations made in the dissecting room, show that surgeons have been very often satisfied with very imperfect adjustment after fractures and that anything approaching accurate apposition of the ends was obtained in only exceptional cases.

Alteration in the axes of the two fragments results in a modification in the mode of transmission of force through them, with a consequent change in the form of the articular surfaces of the joints both above and below the seat of fracture, giving rise

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to pain and disability which so often supervene in fractures, especially of the long bones. Nature is usually very kind in her efforts to restore the normal form of the parts where this is possible, even to laying down the greater part of a new shaft so as to transmit the strain in the normal axis. But should this happy result not ensue, there often follows an enormous physical disability and great financial depreciation in the wage-earning capacity of the individual.

Operations for faulty union and for non-union have been long practiced, but only recently has the operative treatment of recent fractures been performed, no doubt owing to the possible dangers of infection.

The advantages of operative measures in simple fractures are as follows:

(a) They at once relieve the pain caused by movement of the fragments upon one another and partly due to the tension of the extravasated blood into the tissues.

(b) They greatly shorten the period necessary for repair since union is rapid, perfect, and by first intention, thus shortening the convalescence.

(c) They leave the skeletal mechanics in their original condition, and functionally this is very important.

(d) Passive movements of the neighboring joints are possible almost from the first, which lessens the atrophy of the soft parts and stiffness of the joints, which is usually so marked a feature after splints have been retained for long periods.

A number of points deserve particular attention in considering the operative treatment of recent fractures.

(1) No operation should be performed when perfect results can be obtained by other means. The surgeon can determine by a careful study of each individual case whether he can reasonably hope and expect to bring about a restoration of the parts to their normal form. If not, then operation should be done.

(2) It is very important to secure the careful adjustment of the fragments in those who follow laborious occupations, or else their wage-earning powers may be much reduced. This is especially true with regard to fractures involving the long bones of the extremities, where excessive shortening, malposition or limitation in the movements of a joint may incapacitate an individual from following his ordinary occupation. This unfortunate result can usually be avoided by a timely and skillful operation.

(3) The danger of sepsis must be given every consideration. No one is warranted in operating who does not approach his case

with an aseptic conscience and is not a master of the necessary technique. All rough handling of the bruised and lacerated tissues through too small an incision are to be deprecated. The dangers of operation increase with the depth of the bone from the surface on account of the amount of manipulation required.

(4) The general state of health, habits, age and resisting powers of the patient must be accurately measured. Old age, however, in itself is no contraindication to operation.

(5) After operation, when the fragments of the bone have been firmly secured, extension is seldom necessary; tight splinting with the dangers of ischemic paralysis is not called for; a rapid restoration of function by early passive movements is made possible, and much suffering and inconvenience is thereby prevented.

(6) The indications for operation vary greatly with the particular bone broken, the character of the break and its position in the bone.

It has been the common practice for a long time to operate on fractures of the olecranon process, patella and the tuberosity of the os calcis, on account of the impossibility of approximating the fragments by any other method. This also applies to fracture-dislocations of the spine and depressed fractures of the skull. Operation is rarely called for in transverse fractures of the shafts of bones, as they can usually be treated by properly applied splints or by extension. When the fracture is oblique or spiral in direction of the shaft of a long bone and especially when a portion of muscle intervenes between the ends, operation holds out the best hope of success. Certain fractures, as those of the clavicle, except for cosmetic reasons, and those of the bones of the hands and feet, and fractures of superficially placed bones, as in Colles' fracture, rarely call for operative interference. Separation of the tuberosities of the humerus and tibia are far better treated by an open operation.

When a fracture takes place close to, or into a joint cavity, operation is strongly indicated. This is necessary on account of the difficulty of otherwise getting the fragments in anything like accurate apposition, if indeed it is possible, or for the purpose of removing small fragments, or to minimize the amount of callous, which will inevitably be formed and seriously interfere with the movements of the joint or even result in ankylosis. This is particularly true in fractures of the upper extremity of the humerus, especially if complicated by dislocation of the head of the bone, and again in fracture of the lower end of the humerus or of the femur, involving the elbow or knee joints.



## TECHNIQUE OF OPERATION.

The most scrupulous care must be taken to avoid infection. The part should be carefully prepared twenty-four hours before operation, and a pad wet with 1-1,000 bichloride of mercury solution left on over night and the preparation of the skin repeated just before the operation. Strong rubber gloves should always be worn, also cap and mask. Good free incisions are imperative, and all manipulations of the soft parts and bones reduced to the minimum. It is better to handle the tissues with instruments exclusively so as to avoid any possible chance of infection, as this is the one great danger.

The bones are secured with wire, pegs, nails, plates, screws or staples. Each of these materials is specially suited for individual cases. The writer has found that silver wire, even when well annealed, is too fragile and would advocate bronze aluminum wire or ordinary stove-pipe wire in preference. Wire may be used for small bones. Staples are suited for spongy bone, such as tuberosities. Screws offer the best means of securing bones together after the fragments have been drilled, either with or without the use of steel plates. Screws are better made with the thread running right up to the head, as they then will hold better in compact bone and are more easily inserted.

After all hemorrhage has been controlled, the soft parts, including the deep fascia, are brought together with catgut and the skin with horsehair without drainage.

The various materials used rarely give rise to irritation, but should they do so, they may be removed through a small incision when firm union of the bone has taken place.

In certain cases it may be necessary to use splints for a short time and passive movements are commenced early.

In connection with these remarks I desire to record the notes of one of many cases of fracture treated by the open method.

E. H. S., aged 30, referred to me by Dr. C. J. Copp. On January 14, 1909, he fell 18 feet and sustained a transverse fracture of the femur immediately above the condyles, which latter were split apart into the knee joint, constituting what is usually termed a "T" fracture. There was a large effusion of blood into the surrounding tissues and into the knee joint. An endeavor was made, under an anesthetic, to bring the fragments into apposition, but without the slightest success. Two days later the parts were freely exposed by a semilunar incision on the outer side of the leg commencing seven inches above the knee and passing inwards below the joint, dividing the ligamentum patellae en route, thus freely opening the knee joint. This large flap was

then reflected inwards, giving admirable access to all parts. The clots were first removed from the knee joint and then after a great deal of difficulty, with the aid of two assistants and the powerful leverage of large forceps, the three fragments were fitted nicely together. Two ordinary three-inch wire nails were driven transversely through the condyles, one from either side, thus holding them firmly together. The shaft was then secured to the united condyles by means of a steel plate on the outer side and held in place by four half-inch screws. The two portions of the patellar tendon were sewn together by three mattress sutures of chromic catgut and the whole wound closed without drainage. A back splint was then applied, the knee being slightly flexed. This splint was removed in two weeks and passive movements commenced, and four weeks later the patient was around on crutches.

It was then found that there was little active extension possible at the knee joint, owing to a slackness of the ligamentum patellae. To correct this, a strong silver wire was put through between the lower end of the patella and the tubercle of the tibia, at the same time a portion of the patellar tendon was removed and the two ends brought together again. In one week he could extend the leg perfectly. Unfortunately the patient fell three weeks later and a skiagraph showed the wire to be broken in two places. These fragments of wire caused some irritation and have since been removed through two tiny incisions without an anesthetic. It would have been wiser not to have cut the ligamentum patella, but to have chiselled off the tubercle of the tibia with the tendon attached, and to have wired the fragment of bone again into position.

At the present time, four months after the injury, the patient is walking with firm union at the seat of fracture and with a freely movable knee joint.

By no other method than an open operation would it have been possible to have brought these badly displaced fragments together, and to have secured such good functional results.

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## THE SPASMODIC TYPE OF SYRINGOMYELIA.\*

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Syringomyelia was divided by the great authority on this disease, Herman Schlesinger, into six main types, namely: (a) Typical Syringomyelia, (b) Motor, (c) Sensory, (d) Trophic, (e) Tabetie and (f) Pachymeningitic Syringomyelia.

In 1900, Dr. Pierre Marie presented and identified the first five cases of this type, and shortly afterwards his pupil, Guillain, wrote an elaborate thesis, giving a complete description of these same patients, under the name of the Spasmodic type of Syringomyelia. In 1906, with Alquin and again with Raymond, Guillain added two more cases to the series, while Raymond with Francois reported the eighth example in the same year. Verger followed another case, which showed similar symptoms during life to autopsy and records a central glioma as the actual pathological condition, while in 1908 Alexander Bruce, in the *Review of Neurology*, wrote concerning a patient with some resemblance to Guillain's series, who may probably be regarded as possessing either the same or a related type of the disease.

In presenting this patient, whose symptoms correspond to the typical instances of Guillain, the different features of the case are each described, followed by immediate reference to the corresponding condition in the cases reported.

The most important characteristic of the Spasmodic type of syringomyelia is undoubtedly what may be termed *the attitude of the patient*.

This little girl is 16 years old, and the disease has steadily advanced since the age of five, the slow progress being a feature of this condition.

As she stands up, her deformity is apparent. The head slightly bent forward nestles between the strongly marked borders of the trapezius. The thorax, if viewed posteriorly, arching forwards in its upper part, shows a marked concavity in its superior part in front, and this has been termed *thorax en bateau*.

The spine exhibits a most extreme degree of scoliosis, the curvature being to the left side.

The arms are drawn to the side of the body, the right, which is at present the most affected, lying across the body with the

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hand towards the symphysis pubis, and exhibiting marked flexion at the elbow, a position in which it is rigidly fixed.

On the left side the elbow is already commencing to present the same signs, but is far less marked in rigidity than the right.

The shoulders are pushed forwards and upwards, slightly rotated inwards.

Contrasting this attitude with that described by Guillain one notes the similarity in all respects as regards head, shoulders, thorax en bateau and position of the arms. Also the unilateral advance was present in four of his five cases, while the scoliosis was marked in one and present in four others.

Turning from the attitude of the patient to the minute study of the arms, emphasis must be laid on the characteristic position at each joint on the right side.

(1) The shoulder raised by the trapezius, pushed forwards on the thorax and rotated slightly in by the pectoralis.

(2) The elbow in a state of rigid flexion, although if the joint is still further flexed then some extension is possible.

(3) A most important sign at the wrist, namely, *hyper-extension of the hand on the forearm*, which will be referred to again.

(4) The position of the fingers, namely the three inner flexed firmly into the hand, while the fourth finger shows incomplete flexion; this being most marked at the terminal phalanx, and with the thumb, which is adducted, forming a position described as a "pair of pincers."

These striking points are the main diagnostic signs of the disease, together with those already referred to under the general attitude of the patient, and they are reported in all the definite cases of the disease, and may be said to be invariably the same.

True, the exact position of the fingers may show some alteration, due to the period and advance of the disease, so that this may be described as the typical position, and in a more advanced case one may expect to find more marked flexion of the fingers, in which the index will be included, as is well shown in one case of Guillain's. This *hand* has been present in the cases examined post mortem, and is characteristic of syringomyelia spasmodique, and while it might possibly be present in pachymeningitis, yet at the present time it is diagnostic of the former disease.

The hyper-extended wrist is also striking and equally important, and it may be produced by syringomyelia, and conditions copying this, as glioma, pachymeningitis and by acute poliomyelitis.

It is easily distinguished from the common cerebral type of hand seen in diplegia and hydrocephalus in which marked flexion frequently is found.

Considering now the muscular power of the right arm. Movement at the shoulder is limited; elevation is possible, but adduction and abduction are very weak, while no power of rotation is present. At the elbow a very small extent of flexion and extension is possible, and, strange to say, if the power is tried, despite the contracted condition of the biceps, yet the extension of the triceps is greater than the biceps power, and if the arm be still more flexed it is noticeable that the extension is the stronger. So that the muscle in contraction is weaker than the muscle which has given way. The same fact applies to the other arm.

At the wrist slight extension and flexion are possible, and here the contracted extensors are more powerful than the flexors at the reverse condition to that in the upper arm.

The last three fingers can be flexed to a certain degree and partially extended; the first finger to a greater extent and the adducted thumb also to a certain degree.

But the characteristic pincer movement is better shown by the less involved hand, as the right, while presenting the same position has passed into a condition of rigidity where the movement of the thumb is difficult.

In Guillain's series, the muscular power varied according to the extent and stage of the disease, but he also lays stress on the fact that it is the spastic and rigid condition far more than the atrophic condition which causes the loss of power.

The trophic condition of the muscles is such that no actual wasting of any group of muscles beyond disuse wasting can be made out and the condition conforms to an upper rather than a lower motor condition. True, the biceps is in a peculiar contracted condition, and the triceps is extremely small, and the extensors appear wasted, but there is no valid proof that such is the case with the exception that I have observed fibrillation of the left triceps, and this is characteristic of a lower motor neurone disease.

But to offset this important point it must be stated that despite the equally spastic condition of the legs, yet there is no corresponding atrophic condition there, and they look large and well nourished, although one must bear in mind that their affection is much more recent.

Secondly, it is necessary to add that the cases described by Guillain showed the same position of the upper extremity, and

he claims that such is always a sign of local lesion in the cervical region of the cord and is produced by local processes only.

Thirdly, it appears to me to be characteristic of a type of syringomyelia to have atrophic muscles present with much diminished muscular power; without demonstrable wasting of a lower motor neurone type, and by that I mean, for instance, with interosseal paralysis; without markedly hollowed out spaces between the bones, and with electrical reactions which are not typical of degeneration.

The explanation must be that in this disease either certain fibres of a muscle waste and those remaining give the electrical reaction, or else there must be a situation between the pyramidal tract and the nerve cells of the muscles, whose destruction causes the spasticity of the first and the peculiar wasting of this type of case without changed electrical reactions.

Guillain's cases evidently were of the same type, for with the same advanced condition of paralysis he only describes actual wasting in a few muscle groups, usually the small muscles of the hand or isolated forearm groups, although late in the disease more marked atrophy occurs.

This condition of spasticity and rigidity with moderate wasting and with no reaction of degeneration, in a disease making very slow advance, negatives the diagnosis of amyotrophic lateral sclerosis, and may be said to be decidedly characteristic of syringomyelia of this particular type.

The electrical reactions are most interesting, for all muscles react to faradism and to galvanism.

There is no polar change and no sluggish contraction, and in fact the muscles reacted to a current that was approximately normal.

In no case did the authority prove any R. D., even when marked wasting was present, although a stronger faradic current was required for some of the more advanced muscles or when there was definite atrophy.

The condition of the left arm will not be described, except to say that it is beginning to show in an early condition the same tendencies as the right. The elbow contraction is already present and adhesions at the joint are easily broken down. The hand shows the typical three-finger flexion and pincer position of the first two digits, and the wrist is commencing to show the extension position. Fibrillation has been observed in the triceps.

The muscles of the back must be extremely weak, since the scoliosis is so marked, but the abdominal muscles are apparently normal.



The lower limbs are well nourished and are spastic and rigid, particularly at the knees and ankles. There is no wasting. Movements are possible at all joints, no fibrillation is visible.

The gait is rather that of a double hemiplegic movement, taking place from the spine and sacro-iliac joints by rotation.

Such a gait is perhaps more typical of a syphilitic pachymeningitis, but the scoliosis, the anesthesia, the age, the slow advance of lesion, the arm position and the height of the lesion, together with the absence of cerebral specific manifestation, negative that diagnosis. The more marked affection of both pyramidal tracts would also explain its presence here.

The reflexes are as follows: Eyes, normal; jaw jerk, present; biceps, present; left, slightly; right; triceps, present; left, slightly; right, probably due to extreme rigidity of the right side.

Knee joints both increased. Ankle clonus present, and double extensor plantar responses, *right more marked than left*.

In the reported cases the reflexes of the lower limbs have been increased in some cases and decreased in others, while those of the upper limbs were absent in three cases and increased in one.

The bladder and rectum are at present normal; there was a period when micturition required to be performed more frequently, but she has recovered from this. The bladder is frequently affected in the later stages, as the patient may suffer from incontinence and from cystitis, due to trophic disturbances, such as trophic abscess and bleeding.

*Sensation.*—In Guillain's groups, four of the cases gave syringomyelic areas, although in one case he had difficulty apparently in making out temperature sensations, which were more markedly defective as regards heat.

In the fifth case, early in the disease, no sensory impairment was noted beyond slight anesthesia in the upper part of one thigh. Before death, 21 years later, touch, though retarded, was normal except over the left hand.

Pain was lost over some part of the body and retarded generally. Temperature over the whole body was either interpreted as touch or more frequently as cold.

Turning to this patient one may state that correct judgment of anesthetic areas is difficult, as the child is a foreigner. There is much retardation, particularly in certain areas, and especially of temperature.

No tactile anesthesia was made out.

Analgesia was also absent, though there was an area on the right thigh where it apparently was doubtfully present.

But to temperature sensation much importance is due, as while cold seemed everywhere present and no definite mistake was made, yet heat, as in Guillain's case, was affected.

Frequently heat was termed cold, at other times touch, and this all over the body; while on another test the mistake was rectified in places, not in others. An extension of the area, stimulated in certain cases, produced a correct reply.

On the right side one error was practically constant, namely, below the waist and above the thigh, heat was termed touch, but in passing upwards gradually it was called cold, while above the nipple it was recognized as heat. If the temperature was raised to a higher point the test was less successful and the reply might be correct.

On the left side the same phenomena occurred, but less clearly. Finally to a faradic current, the right side was claimed to be more sensitive than the left from the mid line.

Two features require impression here, as they are of great value in these syringomyelic cases.

1. The retardation of sensation.
2. The non-recognition of heat as such, but its perception without temperature association as touch or otherwise as cold.
3. One may note that in early cases sensation may be normal, that temperature disassociation may appear first and that beyond a difficulty in distinguishing heat as such, that no definitely bounded area may be involved, and that retardation may be a distinctive character.

No trophic areas have been discovered, except a large burn scar on the arm and one on the leg, from which no conclusion could be drawn. In Guillain's group, whitlows were present in some cases.

The cranial nerves are normal with the exception that an undulating movement is present on the tongue, which may be abnormal. It is interesting to note that the same condition, an undulation, not a fibrillation, is quoted in one other case. Some of the other patients have had cranial nerve signs, as wasting of the tongue, etc., though they are uncommon.

The mental condition is absolutely normal and unusually bright and clear.

Regarding the diagnosis it is unnecessary to expand, as each possible case has been referred to as corresponding signs appeared. Taking the attitude, the arm condition, the scoliosis, the spastic legs, the fibrillation, the normal electrical reaction, and the irregular disturbances of sensation, there are the two diseases which remain to be differentiated, namely, syringomyelia

and pachymeningitis cervicalis. Guillain believes their separation in most cases is impossible, as either by themselves or together they may lead to a similar set of signs. But in this case, the marked scoliosis and the leg condition, with the absence of definite atrophic wasting, all point to the correctness of the disease being a definite case of the Spasmodique type of Syringomyelia.

In conclusion, let the history end where most commence, namely, with the course. It began at the age of five and she is now sixteen. Pain in the back of the head and the curving of the spine were together the earliest signs; and one of Guillain's cases which went to autopsy commenced with the same pain. These disappeared in the girl's case. Gradually at the age of six the arm began to be affected and she complained of difficulty in moving it. The legs were attacked at about ten years of age, and the right arm has only shown any affection for three years. For the last year there has been slight difficulty in micturition, frequency being increased.



## THE DEVELOPMENT OF THE STUDY OF MEDICINE FOR WOMEN IN GERMANY, AND PRESENT STATUS.\*

BY DR. FRANZISKA TIBURTIUS, OF BERLIN, GERMANY.

There is a proverb in Low-German: "Wer lang slöppt and flink löppt, kümmt ook noch mit." It means that people who sleep long but run quickly, may still arrive in time. Maybe there is expressed in this proverb some peculiarity of German character, at least as it was up to several decades ago, and as other nations are accustomed to imagine it, though under the influence of changing political and social circumstances other features have come forward in the national character to such a degree that good old Michel of former days is scarcely to be recognized. To enter into a special explanation would take too much time in this short sketch. Willingly and freely we admit that the first impulse for medical study for women came to Germany from other countries. The success of the first American women doctors, Elizabeth and Emily Blackwell, was known in our country; seventy years ago international communication across the ocean was not so easy and frequent as nowadays, and a sort of misty cloud hung over the apparition of the female doctor in America, even when a German woman, Dr. Marie Zackerewska, acquired a good position in the profession in Boston. So it was in the middle of the last century.

When I began to study medicine in 1870 it was entirely hopeless to try to get admission to German universities, even to apply would have seemed absurd and ridiculous. There was no other way but emigration. The nearest place where I could pursue my plan was Switzerland, and I chose it, as the Swiss universities resemble the German universities. This little republic was the first one to open her academic institutions to women and foreigners, and gave them opportunities to show to their own country that sex was no insurmountable obstacle.

When in the year 1876 I began practice in Berlin, success seemed more than doubtful. I met with the same objections as all the first women doctors, even in your country, only twenty-five years before our time—it would be entirely hopeless in a conservative country like ours—women would not have con-

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\* Read at meeting of International Council of Women, Toronto, June 30, 1909.

fidence in women in the professional way, and so forth. But every theoretical opposition attracts the attention of the public, and I really think it possible that the discussion was useful to the movement.

But still, the first ten years were heavy, uphill work. It was nearly fifteen years, about 1885-90, before younger women, who helped to strengthen and enlarge the work, entered the profession. Already in the first years a dispensary and the embryo of a hospital, a small place of four beds, was founded with the help of good friends and patients. Practical work did not find much opposition from the side of legal authorities, though German universities were not open to women students; little by little women began to feel that those who wished to be treated by one of their own sex had a right to this privilege. Almost at the same time, as in Germany, women physicians appeared in France and Scandinavia, and a little earlier in England and Russia.

Now, it does not depend on individual will to decide at what time a change of opinion and of institutions shall take place in a large community. The deciding factors generally lie in the whole order of things. And to defend the authorities of my own country against the suspicion of short-sighted obstinacy, I must give some of the fundamental reasons why academic study and the woman physician appeared rather late in Germany. It is generally known that Germany, up to a late date, was a poor country, and that even now public and private wealth is not nearly so large as in other countries, especially on your continent. Besides, it has a preponderance of women. When, about the middle of last century, steam engines and the work of machinery began to enter into the home and to provide more and more for the wants of the family, the work and the bread was taken out of the hands of the unmarried women, and for them the question of economic independence and the possibility of existence became more and more pressing. There was good reason for a German novel-writer to call the woman's movement "The Revolution of Aunts." Before the time of the steam engine there was in nearly every German house a warm place for the unmarried sister or friend, who gave for the shelter and protection of the home her work and her love. She was one of the family. Now there came a change; the aunt became superfluous and felt herself to be so. I well remember that when I was young there was only one way open to women of the educated classes to earn their bread—the calling of the teacher or governess. But this calling, more than any other, requires a special talent to secure satisfactory results for the children as well as for the teacher. And so it is easily

understood that the first aim of the so-called woman's movement in Germany was the opening of new callings in the line of practical work, outside the family, for unmarried women. It is especially the merit of private institutions, like that *Lette-Verein* in Berlin, which is still flourishing and spreading, to have opened the way to practical work and callings. When this was founded the question about scientific cultivation and academic study for women arose, which happily cannot be considered in the first instance as a bread question. In surveying the general development, it appears that between 1880 and 1890 there arose in Germany a larger number of women, claiming to share in the precious riches of science, who would not be satisfied by the communication of the results of scientific work, but claimed to take part in the work itself.

So, as I have explained, one reason for the relatively late appearance of women in academic studies was rooted in the social and economic conditions of Germany. Another reason arose from the regulations of German universities, which are entirely different from the institutions of this country. We have no quasi-private medical colleges; the study of medicine is carried on from the beginning to end at the State universities, and based on regulations of historical foundation. I fully understand that in this country many of those regulations may appear antiquated and not corresponding with modern ideas. But even then it is not to be denied that these old institutions have done good and admirable work, and no institution of historical origin is entirely antiquated, as long as it produces good work. There is in the German character a tendency to conservatism and respect for everything of historical growth which I would not disapprove, though at one time I had to suffer under it: that is always the fate of those living in a time of spiritual revolution.

The principal reason on which the resistance of German universities was founded was that women had not acquired the necessary scientific preparation. Perhaps you know that up to the end of the last century the admittance of Germans to the universities of their own country and to the State examinations depended on their having passed the final examination of a German gymnasium, corresponding to your best Latin schools and academies; while the admittance of foreigners was under scarcely any restrictions. Now these gymnasiums were closed to women, as the idea of co-education, as yet not universally accepted even in this country, at that time was out of the question. So our young women could at first not satisfy the conditions of admittance. But they soon found they had to help themselves



by private institutions. At first in Berlin, then in Karlsruhe, Hanover, Leipzig, women's gymnasiums and supplementary scientific courses were founded on the syllabus of men's gymnasiums. Pupils came from all sides, and when towards the end of the last century the first women had passed the final examination there was no longer any valid reason for objection. For several years women were not yet admitted as matriculated students, but only as hearers, but it was understood that this was only temporary. And in 1904 the right of women to enter on academic studies was legally confirmed. Since the beginning of this century the number of female physicians in Germany has steadily increased. There was only one danger threatening from afar for a time—the idea of the foundation of medical colleges for women only. But it did not become imminent. We fought against it by voice and pen, well knowing that medical women who took a degree from these institutions would, rightly or wrongly, be considered second class. Now it is as easy for women to enter on the study of medicine in Germany as it is in your own country. In Berlin, with its two millions of inhabitants, there are about thirty women physicians at work; most of them have passed the examination of a German university; only a few, like myself, belong to the elder generation of Switzerland. In nearly all larger provincial towns there are women physicians. Also in surgery there are names which are generally known and esteemed. That little embryo of a hospital founded many years ago has developed into a very efficient and well-arranged private clinic. As yet we have not a special women's hospital, with different departments for internal, surgical and gynecological diseases, under the guidance of female physicians; but we are at work, and as we have found much interest and good-will among the public, I do not doubt we shall in a few years have an establishment in Berlin like those in New York, Boston, London, and Zurich.

Nearly all the larger establishments for hydropathy and nervous diseases have among their staff a female physician. The woman doctor has gained a good place among the physicians employed by the mutual benefit societies against sickness and invalidism of communities and professional leagues. This system of mutual insurance is well organized and in every way forwarded by the Government in Germany among the working classes. Those who take an interest in it may hear about it in another section of this congress. I may only mention the union of business women, which has in Berlin alone nearly 50,000 members; among the staff are nine or ten women physicians.

Also the life insurance companies have long found out that it is in their own interest to employ women physicians, as a great many women would rather resign than submit to the medical examination by men. I myself have worked for nearly twenty years for different life insurance companies. But of more importance than all this is the path which the female physician takes in the *social work* for promoting general social welfare. There are a good many points in modern life which we would rather not see, because they appear like blots in the character of nations. But in one respect certainly the ethical standard has been raised to a higher level than in former centuries—the social duties among the different classes are understood in a higher way.

In former days, giving for and supplying physical wants was considered almost the only social duty. "I give the tenth part of all I have to the poor," said the rich youth of the Bible to Christ. "but what more have I to do to gain eternal life?" There were few who put this last question; for the average man to have given was sufficient to clear his conscience. Now we are not satisfied with giving. I may even say there is a tendency to restrict giving. Social care, which does not apply to the individual, but to whole classes of the population, will take more and more the place of charity work, and, we hope, in the course of time will render it still more unnecessary. The great advantage for the individual is the preservation of self-respect and self-dependence.

During the last twenty or thirty years this principle is emphasized more and more in the legislation, and communities and social unions pay attention to it. We see it expressed in the social care for the young. A striking symptom of it is the appearance of the school physician.

At first it was the school boards of larger cities who summoned women physicians to their high schools and girls' gymnasiums. In respect to damages arising from unhygienic organization of the house and those arising from the crowding together of many individuals, the duties of the women physicians to schools do not differ from those of the men. Her work as a woman begins in the contact with the individual. Like every other public institution school life brings some risks with it for a certain number of individuals who fall above or under the average, physically or mentally. The special school illness of girls in our time is nervous debility, depending mostly on poverty of blood, anemia, aggravated by the air and the social life of the metropolis; symptoms of physical and mental debility,



often showing themselves in seemingly reduced capabilities or increased irritability, which may take the form of capriciousness and bad temper. In order to find out the cause of the change and prevent serious and lasting damage, it is essential that teacher and school doctor should act from the same point of view, and therefore good understanding and mutual confidence between these two is the first condition of beneficial work. Every school doctor should go through some special courses in neurology. A woman physician of good sense and good professional standing will often, *by being a woman*, find it easier to understand the very highly developed nervous organism of girls and succeed in influencing capricious and often strange dispositions. In the same way, being a woman, she may be very useful in giving hygienic instruction in the upper classes. Up to our own day there remain in the minds of women in every station of life a good many dark, medieval ideas about natural occurrences, and even mothers of the so-called educated classes are not always sure to give proper explanation and instruction to their daughters in some critical questions. The hygienic lessons in the upper class may teach the young girl to consider such things from a natural point of view, to preserve mental balance as well as physical health. It is easy to understand that in these years hygienic instruction should be in the hands of an efficiently trained woman, rather than in those of a man, however careful and refined he may be. It seems to me that if this instruction in hygiene is carried on in the right way and on a high level the whole question about sexual explanation to the young would be solved in a natural way. To represent the changes of certain years from the hygienic point of view, to presume as already known and natural what every young girl of average intellect instinctively feels is, I think, the best way to prevent harm.

In this way the woman physician has found a place in the school board of the higher schools—not yet everywhere, but in a good many cities of Germany, and we hope that she may find a still more extensive field. As to her work in the primary schools, it has just begun, but it seems to me that here it might be still more necessary. The young girl of the working class, who at fourteen or sixteen has to take up factory work or enters into another family as servant, needs still more than the upper class girl the knowledge of some hygienic principles. Perhaps in some ways she may not be quite as ignorant; but it is not the knowing in itself that gives protection and preserves self-respect; that is only the effect of knowledge, imparted and taken from a higher standard.



And not only in the higher classes, but also at the beginning of school life, the work of the woman physician may correspond to the principle, "Preservation is better than help." It is a fact that in all classes of population a certain number of children are found who, by disposition or by retardation of development, at the age of six years are not yet able to follow the lessons, and therefore become a heavy burden for the school, while, by not being able to follow the instruction, discouragement and timidity render them unhappy and still more incapable. (I may just add in a parenthesis that in many German schools there are separate classes for these mentally inferior children.) In the educated classes this intellectual inferiority is often already found out by a careful mother or by the family physician; but in the working classes, where very often the mother has no time to take special care of the child, the queer behavior is considered as self-will and capriciousness, or is not at all observed. A woman physician whom I know told me a practical formula she had found out to judge about the state of mental development of the six-year-old child (Every child that enters school has to pass a medical examination.) There are several questions put in a friendly and easy way—not like an investigation:

"What is your name? Where do you live? What calling has your father?"

Then she tries to find out whether the child has any conception of family:

"Have you got a grandmother? an aunt? an uncle? In what way are they related to you?"

"Which is the nearest way from your house to the school?"

"Can you give me the name of an animal with four legs? One with two legs? One with no legs at all?"

"From where does your mother get bread? Do you know from what bread is made? Where does the corn grow?"

"From where does your mother get meat? Are there different sorts of meat?"

"What color has the sky? this dress? etc."

A child of six years who is capable of answering these questions may be considered as of average mental development and intelligence; by the manner in which these questions are answered there may be even gained insight into character and temperament. Only when this quite pleasant conversation is closed, the bodily investigation takes place according to the general instructions of school physicians, where most attention is paid to anomalies of the eyes, of the ear, symptoms of physical degeneration, predisposition to chest diseases, etc.

The school physician has to visit every class several times a year, and a condition of successful work is, as I said before, mutual confidence between herself and the teacher, who gives her notice when in the course of school life any bodily or mental peculiarity attracts attention. Then she must try to find out the cause; she is *not* authorized to undertake medical treatment of the case, but has to give notice to the parents and advise them, if necessary, to put the child under medical care. In this respect her task does not differ from that of any school physician.

There are a good many connections, bridges leading from the primary school and the sphere of the school physician and the teacher into that of the social help union for the young. None better than the teacher and the physician may judge by observation whether a child has in its own home the necessary bodily care; there are children sent to school tired and overworked, without breakfast, in a state of thorough bodily neglect; in other cases it is the moral atmosphere of the house that proves fatal to mental development up to a degree that the question arises whether it is necessary to remove the child from these influences. In these rare cases teacher and physician have to apply to the Union for the Aid of the Young. The case is thoroughly investigated, and when it is found that there is no hope to alter the conditions of the house, a new law permits the union to remove the child and put it under the care of communal institutions or in another family. I may add that this new law is applied seldom and only in extreme cases; for there is one thing which can atone for many mental dangers of the house, and which not even the best public education can give—the love of a mother. Even if it seems unreasonable and fallacious, it gives warmth and may lessen the bad effects of the ethical surroundings.

The work of the woman physician to schools is not an easy one; it requires a woman with open eyes and clear judgment and a good deal of tact and good breeding; besides, she must have some knowledge of and connection with other social institutions. But among our German women physicians there are a good many who fully satisfy these requirements.

Another institution for the benefit of the young, where in future the woman physician may take an active part, is the juvenile courts; as in your country, these tribunals follow the aim to put education in the place of punishment, though there may be a difference in some details. It is easily understood that in the judicial proceedings against young female delinquents the judgment of a woman doctor, of the school physician, taught in

neurology, may be of great importance. I have to state that as yet I know of only one case where it has been taken (and has acted for the benefit of the young delinquent—quite recently)—I hope it may be a first step into a prosperous future.

You see, also in our country there are still a good many wishes and hopes for the future; but, all in all, we now have safe ground under our feet.

And though I was only able to give you a summary sketch of the state of things in Germany, I hope you will join me in the opinion—

Wer lang slöppt and flink löppt,  
Kümmt ook noch mit!



## IS LYING EVER JUSTIFIABLE IN MEDICAL PRACTICE?

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BY JOHN HUNTER, M.B., TORONTO.

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Judged from the ethical standpoint, only one answer can be given—an emphatic “No.” Call a man a liar, and is he not willing to risk serious, if not even mortal injury, in defence of his integrity? Yet when physicians sit down and calmly discuss this question, does not the little word “but,” with all its potentialities, obtrude itself here, as in so many other questions in our professional life? “But,” are there not conditions when the frank statement of the truth, by the medical attendant, might produce a shock that would have disastrous effects on the patient! “But,” is the honor of the family not to be protected from the wayward acts of one of its members! “But,” why hang “a sword of Damocles” over the head of the victim of tuberculosis, or cancer, when you can send him away under the impression that “it is a heavy cold settled on the lungs” or “there is a little tumor which you can have removed easily if it grows any larger.” It would be an easy task to multiply such questions, but the above will suffice for our purpose.

A mere academic discussion of this subject would prove altogether unprofitable, as it would probably end in as many different opinions as there were men to discuss it. Any answer to it, to carry conviction, must rest upon facts gathered from everyday practice. The statement that there are no cases to be injured by a frank expression of the truth on the part of the physician would doubtless clash with some of our hazy convictions. Let the aged physician go back over his own experience, and is it not absolutely true that the more thoroughly and impartially he investigates the record, the greater will he find the paucity of cases that the truth would have injured in any way? Could he not fill pages with the records of patients who, instead of being injured by the truth, were actually benefited by it—patients, like patriotic soldiers, who met their fate heroically?

Any physician who feels that he is justified in lying to his patients for a humane purpose ought to spend a few months at one of our Southern health resorts. Let him ask patients “far spent” with tuberculosis what they think of the reputation, wisdom or even common honesty of the physicians whose early diagnosis was “a cold settled on the chest.” Is it any wonder such

patients become the prey of the avaricious quack, for they feel that they were grossly deceived by their own family physicians? Why it has taken us so long to learn that lying about tuberculosis is simply a culpable crime, is an inscrutable mystery. With the great immunity aseptic surgery furnishes, practically the same statement may be made about "dilly-dallying" with tumors of a suspicious character, that are in a position to be safely removed. What holds true of tuberculosis and cancer holds true in regard to every other disease. If we cannot tell our patients the truth, it is on account of our crass ignorance, avarice, or unwillingness to take the time and trouble necessary to impart some knowledge of the natural history of their diseases. A case in point: A healthy man when at business was seized with quite acute pain in lower portion of abdomen a few hours after a pretty sumptuous breakfast. He rather suspected the meal, but, having some dread of appendicitis, he consulted a well-known physician, who told him that the trouble was due to indigestion in lower portion of bowel; gave a prescription for two pills, to be taken at bedtime, followed by a dose of salts in the morning. Fee, five dollars. The patient met his family physician a few days after, and related his experience. All he wanted to know when ill was that the attack was not appendicitis. He simply sneered at the physician for "giving him something," but said "that was one of the tricks of trade with doctors."

This brings up the question of "always giving the patient something"—the placebo lie. The virtue of drugs properly used is not questioned. We do not give a placebo, or "something," for any virtue in the thing itself. We conjure up an imaginary psychic condition of the patient and prescribe for this. We say, "Oh, they won't be satisfied unless we give them something." How do we know? Have we told them frankly the truth about their case? Until we have done so it is purely an assumption on our part. What a moral uplift it is to the physician himself to give the patient minute instructions about the taking of a "bread pill"!!! It is as true in medicine as in morals that "we reap what we sow." We have taught our patients that the great thing in the healing of the sick is the taking of medicine. Herein have we laid the broad foundation on which the whole brood of patent- and quack-medicine fakers have built. The sick say, "Well, if I send for the doctor he will give me some medicine for the blood, or liver, or kidneys. Why can't I save his fees by taking some of the blood, liver or kidney medicine advertised in the papers?" A bottle of some quack

compound is procured. When physicians stop lying in the way of the placebo, etc., tell patients the actual facts, as far as they can be properly understood, and that the cure of disease and the preservation of health depend almost entirely upon good habits, sunshine, pure air, wholesome food, baths, exercise, sleep, the whole fabric of quack- and patent-medicine will be given a mortal blow. The "giving something" delusion that has taught the public to rely so implicitly on the taking of medicine has built up the millionaire patent-medicine vendor at the expense of the doctor, and to the great injury of the health of the people. Lying in medical practice, as in everything else, begets its own Nemesis.

#### REMEDIAL MEASURES.

The cynic may say, "Well, are you obliged to tell your patient all you know?" Certainly not; the greater part of the physician's knowledge is technical, and would be incomprehensible to the patient, and, therefore, useless to him. We know that prognosis is—in many cases at least—very favorably helped by a correct early diagnosis. The cordial co-operation of the patient and friends is our powerful ally in the battle against disease. How can we expect to get this help if we use deception? The more competent the physician is, and the more pains he takes to make an accurate diagnosis, the less tempted he is to resort to deception. The more ignorant and unscrupulous the physician, the more readily he resorts to all the arts of duplicity. We may be told that "we will always have liars in our ranks, the same as every other calling has." This, of course, is true, for the care of the sick is entrusted to men with all the common human frailties, of which lying is one of the most universal and degrading. We are not discussing the common vice, but the professional lie told for a humane purpose. There is growing an ever-increasing consensus of opinion that this form of lying ought to be done away with, and this suggests a problem, viz., as to the best means to be adopted to accomplish this much-to-be-desired result. We must, first of all, have men in medicine who have a profound regard for the truth as an essential Christian virtue; for it would be as absurd to expect to find truthfulness among physicians who regard a lie lightly as it would be to look for honor among unscrupulous politicians. A high standard of literary and technical training. All forms of falsehood and of deception are far more abhorrent to men familiar with the best in literature, art and science than to the ignorant and uncultured. The cultivation of the scientific spirit. One of the



most pernicious influences that affect medical men is the apathy, or want of zeal, begotten by the drudgery of routine work. Invite a distinguished man to give an address at the Academy of Medicine, or other medical gathering, and only a very small percentage of practitioners will attend this scientific treat. The mass are quite satisfied with what little knowledge they have, so long as they can book an extra visit or two that evening. This incessant "wear and tear" impairs the moral fibre, as truly as it does the physical, and to the effects of this drudgery much of the lying and deception in medical practice can be charged. The physician who is zealous in the search for scientific facts spurns falsehood and deception. Herein is a great field for the medical journalists and for our medical leaders. Let the former, by "line upon line, line upon line," and the latter, by "precept upon precept, precept upon precept," seek to kindle within the minds of readers and students an insatiable thirst for the truth, so that when physicians have formed their opinions they can afford to stand by them "with good-natured inflexibility, the more so when the cry of voices is against them."

Let editors and teachers give the same admonition to readers and pupils that Polonius gave to his son Laertes:

" This above all: to thine own self be true;  
And it must follow, as the night the day,  
Thou canst not then be false to any man."

## Selected Article.

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### THE CLINICAL FORMS OF ARTERIO-SCLEROSIS.

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BY PROFESSOR H. HUCHARD, M.D.,

Of the Faculty of Medicine of Paris.

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Although the question of arterio-sclerosis has been under discussion for the last forty years, it is still far from settled, as has been shown by various recent contributions. This is because it is one of the questions that are not based on any exact definition on which observers can come to an agreement. If, as I suggested, there are few contradictory data but many contradictors, this may be ascribed to the fact that some observers regard arterio-sclerosis merely as an anatomical lesion, and do not pay the clinical evolution the attention it deserves.

To hold that the disease is constitutional and at the same time that it is limited to the smaller blood-vessels, or to admit that it invariably commences by endarteritis or mesarteritis, is both to unduly narrow and also to unduly enlarge its scope. To confuse it with atheroma is to take the lesion for the disease. Then, too, to maintain that we may hope to learn the pathogenesis of arterio-sclerosis by experiments with agents that heighten arterial tension is to ignore the fact that hyper-tension is in no wise a necessary accompaniment of arterio-sclerosis, overlooking the fact that we meet with cases of arterio-sclerosis which run their course with a lowered tension (intestinal arterio-sclerosis).

To assert on the other hand that arterio-sclerosis is under the dependence of the nervous system, in other words, a tropho-neurosis, appears to me to be begging the question by mixing up the pathogenesis with the etiology.

Let us turn now to hypertension, which is so often invoked as a cause of arterio-sclerosis. Whatever its importance may be it is far from being the *primum movens* of arterio-sclerosis in the sense of being directly a consequence of the intoxication, and therefore the underlying influence in determining the clinical course of the disease. Arterial cardiopathies commence with intoxication, they continue with intoxication, and they end with intoxication. Without overlooking the manifold and grave dangers associated with hypertension, I hold that it does not explain

the whole symptomatology of arterio-sclerosis in which the disturbances due to the intoxication, along with the cardiopathy, are the principal factors. When hypertension is consequent upon intoxication, the latter is usually of alimentary origin, no better proof whereof is necessary than the toxic dyspnea, the predominant symptom in arterial cardiopathies, which disappears so readily on milk, or even lacto-vegetarian diet.

With reference to the cases of arterio-sclerosis which run their course in hypotension, it appears to me that the disease is consequent upon what, seven years ago, I called "portal hypertension." These patients suffer from "abdominal plethora" with enlarged liver, are liable to recurrent pulmonary congestion and have a readily dilatable heart. The damaged liver no longer fulfils its antitoxic function, so that toxic substances find their way into the circulation and irritate the walls of the vessels. This stasis and portal hypertension are amenable to abdominal massage, which yields excellent results.

On the strength of Josué's experiments, sundry observers have tried to show that arterio-sclerosis is of suprarenal origin, but my own view is that experiments cannot possibly afford us an explanation of the pathogenesis of arterio-sclerosis, for the simple reason that, although we may succeed in determining an arterial lesion, we cannot reproduce a disease with all its sequelæ. To set up generalized arterio-sclerosis in an animal we should have to inject various predetermined toxins along with the hypertensor agents, indeed, I need not insist on the differences between experimental or spontaneous atheroma and arterio-sclerosis. Atheroma remains limited to the large trunks and medium-sized vessels, whereas arterio-sclerosis, a disease of intoxication, affects especially the viscera. This difference in the lesions explains how it is that atheromatous patients remain vascular subjects with a minimum of symptoms, whereas the subjects of arterio-sclerosis promptly become "visceral" subjects, and are exposed sooner or later to the gravest toxic accidents.

Of some 15,000 cases that I have collected, I have carefully investigated 1,980, with the following results: The most frequent etiological factor was gout and its manifestations, gravel lithiasis (393 cases); then rheumatism (254 cases); syphilis (237 cases); alimentary habits (205 cases); and tobacco (188 cases). There were 57 cases following infective diseases, diabetes (51 cases); alcoholism (31 cases); malaria (23 cases); and the menopause (21 cases). Moral and nervous causes only accounted for 19 cases.

Whatever we may think of the value of statistics, these have



an eloquence of their own. They show that tobacco, syphilis and alimentary habits cannot be discarded, as certain authorities would have us do, from the etiology of arterio-sclerosis. The present confusion on the subject of arterio-sclerosis is especially due to authors not having sufficiently defined the limits of the disease, which they seek to describe on the strength of its anatomical characters rather than by its clinical characters. If we keep to the clinical aspect we shall recognize three principal forms of cardiac-sclerosis—cardio-renal, which is the most frequent; cardio-sclerosis of myovalvular origin; and sclerosis of the cardio-bulbar type (Stokes-Adams' disease).

With regard to its clinical course, cardio-sclerosis may be divided into four stages: a first stage characterized by heightened arterial tension of toxic origin (pre-sclerosis); a second, cardio-arterial stage with cardiac degeneration; a third, mitro-arterial, and a final stage, which may be wanting, characterized by disturbances due to cardiectasis.

The dominant symptom during the pre-sclerosis stage is hypertension, presumably of renal origin; this prepares the way for, and causes, the vascular lesions of arterio-sclerosis. At this stage the arterial lesions are reduced to a minimum, so that the disease is perfectly curable. This stage is characterized by hypertension, visceral meiopragia and intoxication, the last-named being consequent upon renal insufficiency, which is the constant and early symptom of arterial cardiopathies, even in the absence of albuminuria. The painful symptoms comprise angina pectoris, rheumatoid pains in the limbs, side stitch and intercostal pain, the arterio-spasmodic origin of which is shown by the success of the vaso-dilatation treatment inaugurated by Weber and Jaquet.

Towards the end of the first stage cardio-sclerosis is accompanied by tachycardia and arrhythmia. This tachy-arrhythmia is soon accompanied by a *bruit de galop*, which is not easy to distinguish in consequence of the rapidity of the heart-beat. Then, too, there is alimentary toxi-dyspnea, which must not be mistaken for uremia. The latter does not disappear rapidly, as does the dyspnea of cardio-sclerous patients on a suitable diet.

This brings me to speak of the asthma and emphysema which it used to be thought might determine asystole by dilatation of the right heart, but personally I have never seen asystole follow asthma or emphysema. Asystole only supervenes in asthmatic, emphysematous subjects who have developed arterio-sclerosis. The heart only becomes dilatable in consequence of pre-existing myocardiac lesions.

In the myovalvular form, in addition to the arterial lesions, we get lesions of the aortic or mitral valves. Clinically, this form manifests itself by the same toxic or meiopragic phenomena. The mitral lesion may lead to narrowing or insufficiency of the auriculo-ventricular orifice, a tolerably frequent consequence. In order to be enabled to distinguish the physical signs of mitral stenosis, it is necessary to lower the aortic tension by rest, diet and hypotensive medication, and to slow the heart by giving digitalis. We then detect doubling of the second sound, attenuated and intermittent, presystolic *roulement* and diastolic snoring, as in all arterial cardiopathies. The functional disturbances are here of capital importance for mitral stenosis, itself productive of dyspnea, is doubly so when complicated by arterio-sclerosis.

Mitral stenosis in the subjects of arterio-sclerosis is accompanied by symptoms which are not met with in pure mitral stenosis, they being consequent on the extension of the arterio-sclerosis to various organs and tissues. I need not insist on aortic stenosis and insufficiency, but it must not be forgotten that it is not the aortitis that does the harm in aortic insufficiency in the subjects of arterio-sclerosis, but the kidney, which by the imperfect discharge of its functions favors the production of toxic disturbances. The disease is in the heart, but the danger is in the arteries, and especially in the kidney.

Arterio-sclerosis may be of aortic origin, as in syphilitic arterio-sclerosis, and it may remain for some time apparently a merely local disease, which, however, in the course of months or years, is followed by the usual symptoms of arterial cardiopathy.

Many physicians attach great importance to the sinuosity and hardness of the temporal artery as a sign of the existence of arterio-sclerosis, but this state of the temporal artery is met with in pure hypertension without any vascular lesion, or it may be due to atheroma without concomitant arterio-sclerosis. Cerebral hemorrhage again has been put forward as a consequence of arterio-sclerosis, but it only occurs when the disease is complicated by interstitial nephritis.

Then, too, we must distinguish between the senile heart and the arterio-sclerous heart, for the proliferation of connective tissue that takes place in the cardio-vascular system of the aged presents many points of difference with that of arterio-sclerosis.

With regard to the therapeutical indications, I need only remark that during the first stage, that of so-called pre-sclerosis, we must deal with the intoxication of renal origin and the hyper-

tension, the former by milk or lacto-vegetarian diet, and the administration of diuretics; theobromine and thyminic acid; the latter by massage, muscular gymnastics, carbo-gaseous baths and vaso-dilators.

In the second stage milk diet is *de rigueur*, or we must, at any rate, reduce the introduction of alimentary toxins to a minimum.

In the mitro-arterial stage we must enjoin milk diet and the administration of theobromine and digitalis, diminishing the amount of liquids. At this juncture I should like to enter a protest against the abuse of certain drugs, which are only indicated at the end of the first stage and during the second stage, such as iodide of potassium, anti-sclerous serums, and certain mineral waters.—*Medical Press and Circular*.



# Progress of Medical Science.

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## MEDICINE.

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IN CHARGE OF W. H. B. AIKINS, F. A. CLARKSON, AND BREFNEY  
O'REILLY.

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### Ontario Experience of Vaccination.

[From Dr. Charles Hodgetts' interesting booklèt on Vaccination, we extract the following article.]

In concluding this important part of the subject, I would sum up my experience of twenty years' work in Ontario, during which time, either personally or through the aid of assistants, over 40,000 vaccinations have been performed, and often in the most unsanitary conditions. I have never known a fatality follow vaccination; I have never seen a life in jeopardy by reason of the inoculation of vaccine, and I have yet to see the first case where illness of either a temporary or permanent character could be ascribed to glycerinated bovine vaccine. Further, in those cases where any illness has followed the operation, it has always, in my experience, been due to contributory negligence allowing of a secondary infection, which could have been prevented had the sufferers observed even the elementary principles of cleanliness, and in the majority of cases a simple abrasion of the skin minus the vaccination would have been followed by precisely similar conditions.

During these years many opportunities have presented themselves to study the question in all portions of the province in outbreaks attended with a mortality rate rivalling any of the serious epidemics of history, as well as in others in which the mortality has been as low as any on record. The immunity to the writer has come from a primary infantile vaccination, a re-vaccination before the twelfth year of life, both with humanized lymph, and from subsequent revaccination—and to this fact alone is due the immunity he possesses.

During this time over five thousand cases of smallpox have been examined, and several hundred treated personally by the writer, and in not a single instance has the disease been seen in a person presenting a typical vaccination scar, the result of a primary vaccination within seven years of the attack of

smallpox; and no instance has presented itself where the patient had ever been revaccinated—while on the other hand, in hundreds of families, the immunizing effects of vaccination have been exemplified, in perfectly protecting those vaccinated against smallpox.

During these years I have only met with one example of a person being apparently a natural immune. Again, I have repeatedly seen the vaccinated father and mother nurse a family of unvaccinated children through weeks of smallpox, without themselves contracting the disease, even in a modified form, although that one vaccination had been made in the case of many parents more than forty years before.

In the schools of the province several instances have occurred where the pupils of a form have all been exposed for days to the infection of smallpox, and the disease has attacked only the unvaccinated scholars.

During the epidemic which prevailed some five years ago in New Ontario, chiefly among the shantymen, a staff of fifteen officials were exposed daily for more than two months to smallpox, but in no single instance did any of these officials, all of whom were revaccinated before engaging in the work, contract smallpox.

In one camp which had to be quarantined owing to a case of smallpox having occurred therein, all the employees (forty-six in number) but one were immediately vaccinated, the one who refused stating he was prepared to swear he had been vaccinated, and also had suffered from smallpox, although no evidence of either vaccination or smallpox could be found. Under these conditions he was allowed to pass unvaccinated. The forty-five proved immune to the disease, while the one ignorant and conscientious (?), but unscrupulous objector developed smallpox, and within three weeks of my visit died a horrible death, an object-lesson to all of the same ilk.

### **Dilute Renal Excretions.**

Macallum and Benson undertook to solve the question as to the filtration or secretion theory of the formation of urine by analyzing the dilute urine produced by drinking large quantities of water. They reason that if the production of urine is due simply to filtration, such urine having passed through the tubules too rapidly to be modified by reabsorption should contain the inorganic salts in the same proportion as does the blood plasma. They found, however, that the relative value of potassium and chlorin is never that which obtains in the blood plasma, and is

usually much greater than that which is obtained in the concentrated urine, formed immediately before the experiment began. This increase in the value of potassium as related to chlorin is due to a "lag" in the diminution of the secretion of the potassium, as compared with that of the chlorin during the decrease in the concentration. This lagging behind, or "hysteresis" may be found again, though not always, when the urine begins to in-

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crease in concentration, the value of — then falling because the

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potassium slowly, and the chlorin (especially of sodium chlorid) rapidly, increases. In some cases, notably toward the end of a series, the rate of the excretion of the potassium, relatively to the chlorin, may rapidly increase or rapidly decrease. The elimination of water is due not to filtration, but to the physiologic activity of the renal membranes involved in the elimination. The removal of potassium salts and of chlorids from the blood by the kidneys is due not to filtration, but to forces which may be termed "secretory," that is, it is caused by an activity which is apparently selective, or differential, but which may be explained as due to difference in solubility of the different inorganic constituents relatively or absolutely, or both relatively and absolutely, would be altered by changes in the constitution of the membrane brought about by the action on it of unusual constituents of the plasma or of constituents of unusual proportions.—*Jour. Biolog. Chem.*, May.

### Ice Test for Vascular Reactions.

Josué and Paillard have been seeking a test for reactions on the part of the vessels less fatiguing than the tests by severe muscular exertion or extensive application of heat or cold, and claim that their new ice test is a simple and reliable means for ascertaining the functional capacity of the blood vessels. It consists merely in the application of a piece of ice to the bend of the elbow; the patient is reclining with the arm exposed and the palm up, and all the muscles of the arm relaxed. Every two minutes the pulse is counted for a quarter of a minute, after which the arterial pressure is recorded with a mercury sphygmomanometer (the modified Potain apparatus). The pulse and arterial tension are thus recorded three times in turn at intervals of two minutes. After an interval of another two minutes the ice is then placed in the bend of the elbow. The pulse and tension are recorded again the moment the ice is applied and again after two, four and six minutes. After two



more minutes the ice is removed, the skin wiped and the pulse and tension are recorded again after two, four and six minutes. The ice must not exert pressure on the arm which would interfere with circulation, but must be held. Among 100 persons to whom this test was applied, it was easy to distinguish the arteriosclerotics and the tuberculous, as in them the reaction always differed so decidedly from normal. With normal conditions in the arterial system, the arterial pressure adapts itself to the influence of the ice, and there is no modification in the pressure, but the pulse varies, or the pressure may vary and also the pulse, but always according to Marey's law; namely, that the pulse grows slow as the pressure increases and faster as the pressure diminishes. In case of functional incapacity on the part of the vessels the pulse does not vary, but the pressure fluctuates, or both fluctuate contrary to the Marey law. This abnormal reaction occurs frequently in arteriosclerosis, especially with involvement of the aorta. The same abnormal reaction occurs also in tuberculosis, but with the difference that the pressure declines progressively during and after the application of the ice, while in arteriosclerosis the pulse remains stable, while the pressure drops, but the latter rises again as the ice is removed. Among the practical points learned by this test is that arteriosclerotic patients presenting normal curves with the ice test have a more favorable prognosis. The test also throws light on the mechanism and action of digitalis in heart disease amenable to digitalis. The ice test further refutes the common assumption that the arterial pressure keeps at a constant level in the individual; on the contrary it is liable to vary within wide limits even from mere emotions. This shows the necessity for caution in ascribing to the effects of treatment any reduction in the pressure observed afterward. Twenty-five typical curves are given to show the reaction in various conditions. One curve shows remarkable fluctuations in the pulse, while the pressure was practically stable; this subject was a healthy girl of 18, very emotional.—*Arch. des Mal. du Cœur.*

## Editorials.

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### THE INTERNATIONAL COUNCIL OF WOMEN.

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The series of important meetings held recently in Toronto was marked by an earnest and thorough discussion of many problems of preventive medicine and public health. The water supply, the milk supply, the training of nurses, infant mortality, factory legislation, housing, and pure food were among the subjects upon which the delegates spent most time and in which they showed most interest. Indeed, so much was this the case that the medical ladies among the delegates, many of whom naturally wished to see the Toronto hospitals and to enquire about medical matters in that city, found it difficult to do so, because the chairmen of their sections were unwilling to give them leave of absence. "You are our experts," said the ladies thus clothed with authority, "and we must have your advice on these matters. We cannot do without you." However, it was arranged so that brief visits were paid to the General Hospital and the Children's, and also, by the kindness of Mr. John Ross Robertson, to the unique and beautiful "Lakeside," where afternoon tea and a cordial welcome awaited the delegates every day for a week.

The medical delegates not only added greatly to the dignity and success of the meetings; they also preserved the Congress from pitfalls on more than one occasion so skilfully that even our respected contemporaries, the daily press of Toronto, never knew that something nearly happened. Stealing an opportunity, one of the speakers none too wisely threw down the gauntlet and, dropping her disguise, appeared as an anti-vivisectionist. The chairman sent for assistance, and, acting under medical advice, applied the closure so swiftly that no harm came of it. At another meeting another still more difficult subject arose, in which the lay point of view and the medical point of view are apt to be mutually exclusive. The chairman, who happened this time to be a medical lady, decided that "this important matter should be referred to the executive," and the danger of an unwise debate passed. (It is a pity this does not happen oftener.)

Never before, probably, have the medical women of Toronto spent a happier fortnight. Charming professional sisters from Berlin, from Stockholm, from Hull, from Brighton, from New York and elsewhere, bore well their part, not only in the business but in the social events of the Congress. The able paper from the pen of Dr. Tiburtius, which we print elsewhere, is worthy to be regarded as an example of the papers on medical subjects, and at the same time shows the high standing and the real progress and service which the medical women of the world are attaining.

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### THE CANADIAN MEDICAL ASSOCIATION.

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The 42nd Annual Meeting of the Canadian Medical Association will be held in Winnipeg, August 23, 24 and 25, under the presidency of Dr. R. J. Blanchard.

Members are directed to purchase first-class tickets to Winnipeg for themselves and their families, paying single fare (plus 25 cents for a standard convention certificate).

These certificates should be placed in the hands of Dr. C. H. Vrooman, Winnipeg, at the transportation office. When signed by him they will entitle the holders to reduced transportation on return journey. East of Port Arthur, if fifty are present with certificates, return will be free.

Single fare to Winnipeg from towns in Ontario between Windsor and Toronto, inclusive, is \$26.05; from Ottawa, \$32.60; from Kingston, \$30.95; from Peterboro, \$27.95; from Montreal, \$36.00; from Québec, \$40. On Upper Lakes \$4.25 additional each way.

*Tickets going and returning via Chicago.*—Arrangements have been made for tickets routed via Chicago and Northwestern Railway for ten days' stop-over at Rochester, Minn., on payment of \$1.75 extra fare St. Paul to Rochester.

The annual fee for membership is \$5.00 this year, which should be paid to the Treasurer, Dr. H. B. Small, of Ottawa. Those who wish to become members should apply to the General



Secretary, Dr. George Elliott, 203 Beverley Street, Toronto, or in the office at the meeting.

The annual meeting of the Canadian Medical Association will be held on the afternoon of Wednesday, August 25th, when the President, Dr. R. W. Powell, of Ottawa, will submit his report.

From the provisional programme which has been issued we learn that many papers have been promised. In addition to the general sessions there will be sections for medicine, surgery, obstetrics and gynecology, ophthalmology and oto-laryngology, and pathology.

The reading of all papers will be limited to fifteen minutes each; discussions, five minutes. Abstracts of papers should be in by August 1st. Address same to Dr. Harvey Smith, Canada Life Building, Winnipeg.

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## THE NEW HOSPITAL AND UNIVERSITY OF TORONTO.

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We are told by the lay press of Toronto that a certain agreement has been arrived at between the Governors of the University of Toronto and the General Hospital Board. The University will secure the southwest portion of the new hospital site for Medical Buildings, and make an annual payment of something like \$15,000 to the hospital for forty years.

In return, the chief Professors of Medicine and Surgery are to be entitled to be heads, each of one service in the hospital, and also the heads of the special departments in the hospital are to be filled by the chief professors in corresponding departments in the University. Other appointments in the hospital are to be made on the recommendation of a joint committee, consisting of four members of the Board of Governors and four members of the Hospital Board.

In substance, therefore, the proposed change is that the University becomes entitled as a right to have her chief professors appointed as heads of the several special departments, and her chief professors in medicine and surgery as heads of two of the

six services in the hospital. The University is entitled by statute and agreement to avail herself of the clinical facilities of the hospital for teaching purposes.

It is expected that the new hospital, according to present plans, will cost approximately \$2,200,000. The amount of cash and subscriptions to date is about \$1,200,000. As to the balance, it is expected that the old hospital property will bring about \$300,000, and the agreement between the University and Hospital can be used as collateral security for at least \$300,000 more.

Our statements as to this agreement are founded on an article which appeared in the *Toronto News*, July 2nd.

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### THE OLD HOSPITAL PROPERTY.

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Many suggestions have been made respecting the use to be made of the present General Hospital property after the new hospital is erected on College Street.

Some think it is likely to be used as a Roman Catholic institution by the removal there of the present House of Providence. Others think it will be formed into a hospital for special treatment of nervous diseases, etc.

A number of physicians and surgeons, especially in the eastern part of Toronto, think it should be retained as a General Hospital to supply the needs of the eastern part of the city, which is growing very rapidly. Those who favor this scheme say that the new hospital will not accommodate more than 450 patients, which is only fifty more than the present buildings can accommodate. They say the Western Hospital is overtaxed, Grace is filled and St. Michael's has no more room. Therefore, a hospital for the east end will be absolutely necessary within a comparatively short time. Considering the rapid growth of the city, which appears likely to continue for some years to come, we believe that those who think the city will soon require more hospital accommodation are correct.

## INTER-PROVINCIAL RECIPROCITY.

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We clip the following letter from the *Western Canada Medical Journal*:

*To the Editor of the Western Canada Medical Journal:*

Dear Sir,—Thirty years ago, more or less, I attended a meeting of the Dominion Medical Association, where I heard the subject of Dominion Registration discussed and finally referred to a committee with instructions to report the following year:

Eleven years passed before I had the privilege of again attending a meeting of the same Association, when the subject was again discussed and again referred to a committee.

I have good reason to believe, during these eleven years and for about eleven years after my second meeting, Dominion Registration was a hardy annual, coming up at every meeting, having a year's rest in committee and bobbing up at the next with unfailing regularity.

Then came Dr. Roddick with his bill and we all hoped. It was a good bill. Dr. Roddick put into it, and the effort to make it effective, years of arduous work, and intellect of a high order, and energy and influence which would almost have served to ensure success, but at the last it was balked by the jealousies and rivalries of the educational institutions of Ontario and Quebec. And so we settled down to the *status quo*, hoping for something to turn up, but pretty well despairing of realizing the ideal.

The last couple of years, we in the West have thought it possible that we might have a partial sort of Dominion Registration (a misnomer of course) by an arrangement of the four Western Provinces to have a common examination and a common registration—that is, one examination for the four provinces, the passing of which would entitle one to be registered in any of them on payment of the prescribed fee.

It would seem that there could be no valid objection to such a scheme, but during my tenure of office as president of the Alberta Medical Council, when tentative propositions were made in this direction, one province agreed to the principle only if registration were made retroactive, and another turned it down altogether.

Perhaps because I am by nature optimistic I still believe that there is a strong sentiment through the mass of the profession that the present situation savors more of the petty jealousies of little parish councils than of the standing and dignity of a



learned profession, and that there should be found some way of at least bettering the condition of affairs which is a continuous reproach to us as a body of intelligent and educated men.

I venture, therefore, to make a suggestion:

I believe that one of the difficulties—perhaps the main one—has been that we have wanted to legislate for ourselves. We have wanted reciprocity, or a common registration, because we might want to practise in another province by ourselves. Suppose that we sink the idea of self altogether, and try and make it better for those who come after us. Let our status remain as it is, or if we want to practise in another province, pass the prescribed examination—if we can.

But from now on, is there any earthly reason why there should not be one examination for the four Western provinces, held simultaneously, say at Winnipeg, Regina, Calgary or Edmonton and Victoria, the passing of which would enable a man to practise in Manitoba, Saskatchewan, Alberta and British Columbia on payment of the registration fee? Such an examination conducted by the best men in the four provinces would command respect. It would ensure British recognition. It would remove a standing reproach, and—who knows?—it might almost bring about Dominion Registration.

You have always taken a keen interest in matters such as this, and the *Journal* reaches probably more of the men living in the four provinces than any other. May I hope, then, that you will give my proposal your serious consideration, and if it seems good and feasible to you, present it to your readers with more debate and argument than can be compressed in the scope of a letter.

I have still another suggestion. The Dominion Medical Association meets in Winnipeg next summer, and it would seem to be an opportune time for a meeting of, say two representatives from each of the four Medical Councils to discuss the matter, and if possible arrive at some basis of agreement. There are now six months to work in, and it ought to be possible in that time to find out whether the plan proposed finds favor in the eyes of the profession in the West.

Yours truly,

Macleod, Alta.

G. A. KENNEDY, M.D.

The above letter speaks for itself. We are heartily in accord with its spirit. However, the Medical Council of British Columbia are really not anxious for reciprocity; at least they were not a short time ago, as they rejected a proposal from the On-

tario Medical Council to jointly consider a means of arriving at reciprocity. During July a committee met, at Vancouver, B.C., composed of representatives of the Medical Councils of Manitoba, Saskatchewan, Alberta and British Columbia, to discuss reciprocity between these Provinces. The Ontario Medical Council, at its session in July, at the request of the Medical Council of Manitoba, appointed a committee composed of Doctor Spankie, of Wolfe Island, and Dr. Ryan, of Kingston, to meet a committee of the Medical Council of Manitoba in Winnipeg during the meeting of the Canadian Medical Association. We sincerely hope that some means may be devised to secure the much-desired reciprocity.

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### NOTES.

The International Congress of Nurses was held in London, Eng., July 20th to 23rd.

The sixty-seventh Annual Meeting of the British Medical Association was held in Belfast, July 27th to 30th.

The members of the International Council of Nurses visited Windsor, July 24th, and by the gracious permission of His Majesty King Edward, Miss Snively, President of the Canadian National Association of Trained Nurses, placed a wreath on Queen Victoria's tomb at Frogmore.

The authorities of McGill University received on Dominion Day a cablegram from Lord Stratheona, announcing a donation from him of \$500,000 towards the funds of the University. Of this amount, \$450,000 is to be used for completing the new Medical Building, and the remaining \$50,000 towards the augmentation of the salaries of professors. Lord Stratheona's total benefactions to McGill University amount to over one million dollars.

The annual meeting of the Niagara District Medical Association was held in Welland, July 1st. Dr. Llewellyn F. Barker, of Johns Hopkins, delivered an interesting address on "New Methods of Diagnosis in Diseases of the Heart."

The following officers were elected: President, Dr. Frank W. E. Wilson, of Niagara Falls; Vice-President, Dr. J. Sheahan, of St. Catharines; Secretary-Treasurer, Dr. N. Walker, of Niagara Falls.

**University of Toronto, Medical Examinations, Fourth Year.**

The following are the results of the fourth year examinations in medicine for the University of Toronto:—

Final examination—Degree with honors—1, W. J. M. Marcy; 2, F. J. O'Connor; 3, R. McTavish.

Medals—Gold, C. B. Parker; silver, 1, W. H. Tytler; 2, W. J. M. Marcy; 3, A. G. Brown.

Graduates in arts, in natural sciences or in the biological and physical sciences—H. W. Baker, I. R. Bell, H. R. Holme, W. L. C. MacBeth, A. B. Macallum, C. B. Parker, R. S. Pentecost, E. A. Rae, L. B. Robertson, L. J. Solway, C. R. Totton, W. H. Tytler, N. J. L. Yellowlees.

Group I.—Medicine, clinical medicine, pathology and therapeutics—1, C. B. Parker; 2, W. H. Tytler; 3, F. J. O'Connor; 4, W. J. M. Marcy; 5, C. A. Harvie.

Group II.—Surgery, clinical surgery, surgical anatomy and pathology—1, C. B. Parker; 2, J. A. Johnston; 3, R. McTavish; 4, W. J. M. Marcy, W. H. Tytler; 6, C. A. Harvie.

Group III.—Obstetrics, pediatrics, gynecology and pathology—1, W. J. M. Marcy; 2, C. B. Parker; 3, W. H. Tytler; 4, C. A. Harvie; 5, R. H. Thomas; 6, F. J. O'Connor; 7, R. V. B. Shier; 8, L. A. Douglas; E. A. W. Morgan; 10, G. N. L. Earle; R. D. Lane; 12, J. H. McIntosh; 13, H. R. Holme; 14, I. R. Bell, J. A. Johnston; 16, J. R. Christian; 17, R. McTavish.

Group IV.—Medical jurisprudence, toxicology, hygiene and psychiatry—1, A. G. Brown; 2, R. D. Lane; 3, R. H. Thomas; 4, C. B. Parker; 5, W. F. M. Adams, W. H. Tytler; 7, J. L. Graham; 8, J. R. Christian, G. J. Whetham; 10, W. W. Terman, W. S. Verrall; 12, A. E. Sutton; 13, H. M. Clarke; 14, L. B. Robertson; 15, R. McTavish.

Fourth year—Pass—G. W. Anderson, C. F. Atkinson, G. O. Barclay, G. Belfie, J. S. Boyd, R. W. Breule, R. J. R. Bright, N. E. Culbertson, J. D. Cunningham, D. V. Currey, R. E. Davis, W. Davis, T. A. J. Duff, E. J. Eacrett, W. M. Ecclestone, H. H. Eady, S. Ellis, H. G. Emerson, H. B. Ewens, E. S. Fish, V. S. Francis, J. C. Gandier, J. R. Gibson, G. A. Glionna, C. W. Graham, G. C. Gunn, M. J. Haffey, B. Hannah, E. C. Harris, E. K. Henderson, B. H. Hopkins, W. Jamieson, D. B. Jamieson, W. G. Leggatt, R. W. Lynn, R. O. Miller, H. H. Moshier, K. M. Murray, C. J. McBride, D. McCaffery, W. L. McCullough, R. J. McEwen, S. F. McEwen, J. A. McInnis, W. T. McLean, J. D. McPhee, A. E. Naylor, S. W. H. Nelson, G. B. New, H. M. Nicholson, K. J. O'Neill, T. S. Orr, T. W. Peart, W. C. Pedlar, W. G. Penney, G. R. Philip, J. W. Pilcher, Miss B. T. Pullan,



J. N. Richards, L. A. Richmond, W. L. Ritchie, F. N. Robertson, W. H. Robertson, N. W. Rogers, J. A. Simpson, W. D. Slater, Miss J. Smillie, F. C. D. Smith, J. G. R. Stone, H. A. Taylor, N. Telford, N. L. Terwillegar, W. M. Thomas, J. T. Thomas, H. L. Turnbull, V. L. Turrill, G. H. Wallace, E. R. Wells, L. B. Williams, J. S. Wray, D. A. Campbell is granted ægrotat standing of the fourth year.

A number of students are required to pass supplemental examinations in the subjects mentioned against their names in a list given below.

#### SUCCESS IN SUPPLEMENTALS.

The following students have completed supplemental examinations in the following subjects: Medicine—J. J. Field. Clinical medicine—J. E. Haight, G. W. Ross. Surgery—J. A. Campbell, J. J. Field, R. E. Humphries, R. R. Walker. Clinical surgery—R. L. Hurst. Pathology—R. E. Humphries. Gynecology—J. J. Field, C. F. W. Ross, A. A. Thompson, R. R. Walker. Ophthalmology, otology, laryngology and rhinology—A. A. Thompson.

#### MUST PASS SUPPLEMENTALS.

The following graduating students are required to pass supplemental examinations before completing the fourth year in the subjects named: Medicine—D. V. Currey, W. M. Ecclestone, S. Ellis, H. B. Ewens, J. R. Gibson, C. W. Graham, G. C. Gunn, D. B. Jamieson, Miss M. Morden, K. M. Murray, W. L. McCullough, W. T. McLean, S. W. H. Nelson, H. M. Nicholson, G. R. Philp, J. N. Richards, W. L. Ritchie, N. W. Rogers, Miss J. Smillie, J. G. R. Stone, N. Telford, J. T. Thomas, G. H. Wallace, E. R. Wells, L. B. Williams.

Clinical medicine—G. W. Anderson, W. M. Ecclestone, S. Ellis, H. B. Ewens, G. A. J. Glionna, C. W. Graham, B. Hannah, W. Jamieson, K. M. Murray, W. L. McCullough, W. T. McLean, I. D. McPhee, S. W. H. Nelson, H. M. Nicholson, W. G. Penney, W. H. Robertson, N. W. Rogers, W. D. Slater, Miss J. Smillie, J. G. R. Stone, N. Telford, J. T. Thomas, E. R. Wells, L. B. Williams.

Surgery—G. C. Gunn, R. O. Miller, W. T. McLean, J. D. McPhee, S. W. H. Nelson, H. M. Nicholson, E. R. Wells.

Pathology—H. B. Ewens, G. C. Gunn, D. B. Jamieson, J. N. Richards, W. L. Ritchie, N. W. Rogers, H. A. Taylor.

Hygiene—N. Telford.

Pediatrics—G. A. J. Glionna, B. Hannah, R. O. Miller.

Ophthalmology, otology, laryngology and rhinology—S. Ellis,

J. R. Gibson, G. A. J. Glionna, C. W. Graham, G. C. Gunn, W. L. McCullough, H. M. Nicholson, W. G. Penney, W. D. Slater, J. G. R. Stone, H. A. Taylor, J. T. Thomas, G. H. Wallace, E. R. Wells.

Clinical surgery—J. R. Gibson, W. Jamieson.

Obstetrics—H. H. Moshier, H. M. Nicholson, G. R. Philp, W. L. Ritchie.

### Ontario Medical Council.

The following candidates passed the recent examinations of the Ontario Medical Council:

#### PRIMARY.

Charles C. Alexander, Ivan E. Annett, Albert H. Baker, Harold R. Barker, Newton J. Barton, Cecil C. Birchard, Richard Blanchard, William O. Bonser, Frederick Boyd, Franklin C. Bracken, John C. Bradley, Lawrence F. Brogden, Frederick T. Bryans, Fred. S. Burke, Harry W. Benson, John A. Campbell, William C. Campbell, William R. Cann, Duncan Carmichael, Geo. W. D. Carleton, John P. S. Cathcart, William E. Caven, Stanley G. Chown, Neil A. Christie, John R. Christian, William A. Claxton, Llewellyn H. Coates, Morley G. Cody, William M. Cody, Hugh M. Cooke, Leo J. Corrigan, William E. Cruickshank, Stella A. Cunningham, Robert D. Defries, David L. Dick, Roy D. Douglas, Archibald S. Duncan, Charles F. Dumfield, Allan S. Eagles, Harry G. Emmerson, Edgar V. Emery, Donald T. Evans, Ronald M. Fergusson, David J. N. Ferrier, Susie L. Fotheringham, Carlos L. Fuller, Harry G. Furlong, Thomas M. Galbraith, John A. Gardiner, Nelles T. George, William O. Gliddon, Howard Gordon, Raymond Gorssline, Lawrence O. Griffin, Richard E. Guyatt, Louis G. Hagmeier, Walter R. W. Haight, John F. Hagmeier, Gordon M. Hanna, Alfred P. Hart, Horace H. Harvie, Clarence W. Henders, George L. Hodgins, Philip H. Huyek, Gordon Hyland, Cecil G. Imrie, Lloyd A. Jones, Dennis Jordan, James V. Jordan, Ephriam E. Kells, Charles B. Kelly, James K. Langford, William James Leach, Arthur V. Leonard, Maurice Levy, Oliver R. Mabree, Archie Macdonald, Ewen A. Mackenzie, Lloyd P. MacHaffie, William J. Mackenzie, William Mainprize, William Geo. Martin, John LeRoy Mavety, Elmer W. Mitchell, Herbert B. Moffatt, James K. Mossman, Giles B. Murphy, Chas. J. McCabe, Albert M. McCormick, John F. McCracken, Gordon L. McFarlane, Edwin Henry McGavin, Thos. C. McLaren, Archie McMurchy, John Albert McPherson, Robert

Dick Orok, Bryson C. Patterson, Henry H. Pirie, Albert Gower Poole, George Wesley Pringle, Byron C. Reynolds, Ernest A. Richardson, Deardon Rigg, James Frederick Rigg, Harold L. Rountree, Frank Ramsay Scott, Norman S. Shenstone, Ross Lester Shields, Charles W. Sinclair, Wilfred Davy Smith, William Wallace Smith, Robt. Scott Smith, Leon Judah Solway, Frank E. Spencer, Elizabeth L. Stewart, Robert Roy Stirrett, James D. Struthers, Dennis Sweeney, Paul Joseph Sweeney, Thomas Snyder, James Thomson, Frank L. Thompson, Sydney E. Thompson, Wilfred Thurtell, William R. Tutt, George Napier Thomas, Merriitt C. Vaughan, Ambert H. Veitch, Carl W. Waldron, Marchant B. Whyte, Warren E. Wilkens, William M. Wilkinson, John P. Wilson, Harold C. Workman, Herbert M. Yelland, Norman J. L. Yellowlees, Clarence R. Young, Ernest W. Zumstein.

#### INTERMEDIATE.

The following candidates have passed the intermediate examination of the Ontario Medical Council: William Francis Adams, Charles F. Atkinson, Gerald Belfrie, Julian S. Boyd, James G. Bricker, James B. Brown, Duncan Carswell, Duncan Carmichael, James Roy Childs, John R. Christian, Hugh M. Cooke, John Donald Cunningham, Leon Alex. Douglas, George N. L. Earl, Harry G. Emmerson, Arthur W. M. Ellis, Stuart M. Fisher, Joseph C. Gandier, James Lorne Graham, John P. Harrison, Charles A. Harvie, Matthew J. Haffey, Charles Gordon Heyd, Herbert R. Holme, Bruce Holmes Hopkins, Joseph Ravul Hutubise, Reuben L. Hurst, Edwin F. Jeffries, John A. G. Johnston, Arthur Clifford Johnston, Richard Donald Lane, Robert Wesley Lynn, Oliver R. Mabee, Archie Macdonald, William J. M. Marcy, John H. MacIntosh, Chester N. Mooney, Edward A. W. Morgan, Heber H. Moshier, Giles B. Murphy, James J. F. McCann, William A. McClelland, Robert J. McEwen, Alex. Dunbar McKelvey, Albert M. McCormick, Thomas C. McLaren, Andrew McMillan, Robert McTavish, William McIlmoyle, Archibald E. Naylor, Gordon B. New, Fred. L. Neeley, Fred. J. O'Connor, Robert Dick Orok, Charles B. Parker, Paul Poisson, Osman A. Pogue, James Stafford Quinn, Edgar Rae, Lawrence B. Robertson, George Westlake Rogers, Charles W. Sawers, Norman S. Shenstone, Robert V. B. Shier, Leon Judah Solway, Charles G. Sutherland, Norman L. Terwillegar, Roy Hindley Thomas, William E. Tindale, William H. Tytler, William Gordon Wallace, Rene E. A. Weston, Edward C. Wilford, Francis D. Wilson, Norman J. L. Yellowlees.



## FINAL.

The following candidates passed the final examination of the Ontario Medical Council: Byron E. Biggs, Herbert McG. Bowen, Henry K. Bates, James G. Bricker, James B. Brown, Duncan Carmichael, Hugh M. Cooke, David Wesley Clarke, Duncan V. Carswell, Samuel V. Carmichael, Alex. Douglas Campbell, Andrew L. Campbell, Oliver S. Craise, W. Elmore Cameron, Harry Lloyd Emmett, William R. Fader, Francis J. Folinsbee, Jordan M. Fowler, William F. Fielding, Joseph C. Gandier, John P. Harrison, Charles Gordon Heyd, Herbert R. Holme, Joseph Ravul Hutubise, Reuben L. Hurst, James Graham Harkness, Laura S. Hamilton, Clarence Edgar Hill, Bertrand B. Horton, William Arthur Harvie, Victor S. Kaufman, Joseph M. Kelly, Weston Krupp, John Elwood Keyes, Murray A. McDonald, Oliver R. Mabee, Archie Macdonald, Giles B. Murphy, Charles R. Mackenzie, Allan James MacKinnon, Fuller S. Macpherson, William Mabee, Adam Hume Millar, Albert M. McCormick, Alex Dunbar McKelvey, Thos. C. McLaren, William A. McClelland, Andrew R. McMillan, James A. McGibbon, Leo George McCabe, William Geo. McCulloch, Fred. L. Neely, Robert Dick Orok, Charles B. Parker, George H. Patterson, Osman A. Pogue, Wallace Pratt, Edgar Rae, Lawrence B. Robertson, George W. Rogers, William Alex. Robertson, Allan Ross, Leon Judah Solway, Charles W. Sawers, Norman S. Shenstone, Chas. G. Sutherland, John Masson Smith, William E. Tindale, William H. Tytler, Clarence P. Thompson, William Gordon Wallace, Rene E. A. Weston, Edward C. Wilford, Francis Douglas Wilson, Garnet W. Williams, James Henry Wood, Norman L. Yellowlees.

## Personals.

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Dr. T. Shaw Webster, of Toronto, sailed for Europe, July 14th.

Dr. Brefney O'Reilly of Toronto sailed from Quebec for Ireland July 24th.

Professor A. Primrose, of Toronto, sailed from New York for Liverpool, July 15th.

Dr. Fred. Grasett returned to Toronto, June 21st, after a three months' visit to Great Britain.

Professor I. H. Cameron, of Toronto, sailed on the *Canada* from Montreal for Liverpool, July 17th.

Dr. Herbert Bruce left Toronto for England July 12th. He expects also to go to Vienna and Budapest.

Prof. John Chiene has tendered his resignation as Professor of Surgery in the University of Edinburgh.

Dr. Samuel Johnston, of Toronto, left on a short holiday in Quebec, July 17th, and returned July 26th.

Doctors A. W. Mayburry and E. Herbert Adams left Quebec for Liverpool on the "Laurentic," June 29th.

Hon. Dr. Reaume went to England in June. After visiting London and Paris he left for a tour through Italy.

Dr. W. B. Thistle, of Toronto, left for the Pacific Coast, July 1st, and will spend the greater part of the month in Seattle.

Dr. A. H. Garratt returned to Toronto, June 17th, after a trip to Bermuda with Mr. H. C. McLeod on the yacht "Ambrita."

Dr. R. M. Coulter, Deputy-Postmaster-General, returned to Ottawa, June 26th, after a six months' trip to Australia and New Zealand.

Professor J. T. Fotheringham, of Toronto, left on a trip to the Pacific Coast, July 14th. On his return he will take in the Winnipeg meeting.

Dr. John McCollum returned to Toronto, June 17th, after spending three years in post-graduate work in London, England, and the continent.

Dr. Oswald Dinnick sailed on the "Megantic" for Liverpool, July 3rd. He expects to remain in London during the summer and return to Toronto in October.

Dr. H. J. Hamilton, of Toronto, sailed on the "Canada" from Montreal for Liverpool, July 17th. After spending some time in England, he will go to Vienna and Budapest.

Dr. R. A. Reeve, of Toronto, sailed from New York for Liverpool, July 1st. After spending some time in London, he will go to the continent and attend the Budapest Congress.

Dr. W. H. B. Aikins and Dr. G. Sterling Ryerson sailed from New York for Hamburg, July 15th. After spending some time in Wiesbaden they will go to Berlin, Vienna and Budapest.

Sir Felix Semon, physician-extraordinary to the King, is about to retire from practice. He was entertained at a banquet given by his professional friends at the Hotel Metropole on July 2nd.

Dr. Jas. F. W. Ross, of Toronto, left for a motor trip through the Northwest Territories, July 11th. He will take in the Winnipeg meeting on his return. He has as one of his guests Dr. Fisher, of New York.

The British Columbia Medical Council struck the name of Dr. William H. Willson off the register because (it was alleged) "he had, while in a state which rendered him unfit to attend any patients, attended a case of confinement, in which the patient died."

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## Obituary.

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### P. E. JONES, M.D.

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Dr. Jones, ex-Indian Agent of the Mississaugas, died at Hagersville, June 29th. Dr. Jones graduated from Queen's University in 1866. It was chiefly through his efforts that the claims of the Chippewa Indians against the Dominion were admitted.

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### WILLIAM GREIG RATCLIFFE, M.B.

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Dr. W. G. Ratcliffe, of St. Catharines, died of typhoid fever July 12th, aged 31. He graduated in medicine from the University of Toronto in 1899, and practised in St. Catharines from 1902 up to the time of his last illness. He was surgeon to the Niagara, St. Catharines and Toronto Railway, and was a member of the staff of the General Hospital.



## Book Reviews.

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OXFORD MEDICAL PUBLICATIONS. COMMON DISORDERS AND DISEASES OF CHILDHOOD. By George F. Still, M.A., M.D. (Cantab.), F.R.C.P. (Lond.). Professor of Diseases of Children, King's College, London; Physician for Diseases of Children, King's College Hospital; Physician to Out-patients, Hospital for Sick Children, Great Ormond Street; Honorary Member of the American Pediatric Society, London; Henry Frowde, Oxford University Press; Hodder & Stoughton, Warwick Square, E.C. Toronto: D. T. McAinsh & Co.

No book has appeared this year that excels this new work of Still's. Written in a lucid and readable style, the author has given his own opinions and observations, which makes the book very valuable, in striking contrast to the volumes which appear on this side of the Atlantic, compiled chiefly by means of the scissors and mucilage pot. Every subject considered is treated in a thoroughly scientific manner by a man who is a teacher, and who has the faculty of making things clear.

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HYDROTHERAPY. A BRIEF SUMMARY OF THE PRACTICAL VALUE OF WATER IN DISEASE FOR STUDENTS AND PRACTITIONERS OF MEDICINE. By William H. Dieffenbach, M.D., United States Delegate and Vice-President of the First International Medical Congress on Radiology and Ionization at Liege, Belgium; former Professor of Bacteriology, New York Medical College and Hospital for Women; Professor of Hydrotherapy, New York Homeopathic Medical College and Flower Hospital; Physical Therapist to Volunteer St. Gregory's Hospital; Electro-Therapist to Flowe and Hahnemann Hospitals; Member of the National Society of Physical Therapeutics, American Electro-Therapeutic Society, New York Physico-Therapeutic Society, American Roentgen Ray Society, American Institute of Homeopathy, Academy of Pathological Science, etc., etc. New York: Rebman Company, 1123 Broadway.

Few students, when they leave college, have any adequate knowledge of hydrotherapy, and as a result this valuable side of our armamentarium is sadly neglected. It is to assist the practitioner who is aware of his defective education that this book is written. We can strongly recommend it.

**PROGRESSIVE MEDICINE.** A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia; assisted by H. R. M. Landis, M.D., Assistant Physician to the Out-patient Medical Department of the Jefferson Medical College Hospital. June 1, 1909. Philadelphia and New York: Lea & Febiger. \$6 per annum.

The contents of Volume II. are: Hernia, by Dr. Coley; Surgery of the Abdomen, exclusive of hernia, by Dr. E. M. Foote; Gynecology, by Dr. Jno. P. Clark; Diseases of the Blood, Diathetic and Metabolic Diseases, Diseases of the Spleen, Thyroid Gland and Lymphatic System, by Dr. A. Stengel; Ophthalmology, by Dr. E. Jackson. These will all be found to be up to the high standard set by *Progressive Medicine* many years ago, and make a most complete summary of the progress of the last twelve months. As we have often said, this is the work for the busy man.

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**MYOMATA OF THE UTERUS.** By Howard A. Kelly, Professor of Gynecology in the Johns Hopkins University; Gynecologist-in-Chief to the Johns Hopkins Hospital, and Thomas S. Cullen, Assistant Professor of Gynecology in the Johns Hopkins University, and Associate Gynecologist to the Johns Hopkins Hospital. Philadelphia and London: W. B. Saunders & Co.

This fine volume, dedicated to the late Dr. Sweetman, of Toronto, "a man of rare surgical judgment, and a true friend," will, it goes without saying, receive a most cordial welcome from the profession. Nothing at all has been spared, either work, thought, time, material or money, by the authors and the publishers, to make it as nearly ideal as a book can be made.

This applies also to the work of the illustrators, Mr. Horn and Mr. Becker, which is so good that any adequate description of it would seem too laudatory. The illustrations are magnificent.

For twenty years the authors have been collecting material at the John Hopkins and elsewhere for this great work. Their own cases and their own experience, first and last, form the basis of the volume—1,674 cases in all. Taking the cases from 1889 to July 11, 1906, the mortality was about 5 per cent. But from July 1, 1906, to January 1, 1909, during which time there have been 238 myoma operations, the death-rate has been only 1 per cent—a splendid record.

Out of 993 hysteromyomectomies, only 24 were by the vaginal route. It is considered by the authors that although recovery is more speedy, and the patient has less immediate discomfort after the vaginal operation, yet the final result to the patient is made better after the abdominal operation.

The book is a mine of information. Though the authors have to say that "We still know practically nothing as to the cause of uterine myomata," still they have preserved valuable data on many points which cannot but be useful to workers after them in the field.

The youngest patient was 19 years, 26 patients were under 25 years, the oldest was 71 years, and the great majority of the patients between 28 and 52 years of age.

No aspect of the subject is neglected, nor any which, though side issues, may help to elucidate the main topic. Among specially useful chapters to the general practitioner may be mentioned Differential Diagnosis, Pregnancy and Uterine Myomata, and the Bladder in Cases of Uterine Myomata.

We have examined this book, which is worthy to mark an epoch in American gynecology, with the greatest interest and pleasure, and offer our sincere congratulations to the authors upon it.

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A SYSTEM OF SYPHILIS. Edited by D'Arcy Power, M.B., F.R.C.S., and J. Keogh Murphy, M.C., F.R.C.S., in six volumes. Each volume is fully illustrated with original illustrations, many of them direct color photographs, and is complete in itself. Price, \$12.00 each, or to subscribers, \$66.00, complete. Canada: D. T. McAinsh & Co., Toronto.

Volume II.—This volume deals with the "Surgery of Syphilis," by D'Arcy Power; "Treatment of Syphilis and an Outbreak in Virgin Soil," by Col. F. J. Lambkin, R.A.M.C., and "Syphilis in Obstetrics," by Dr. William J. Gow.

The second volume of this series is certainly as comprehensive in its treatment of the subjects as the first volume. The "Surgery of Syphilis" is most elaborately dealt with, and the historical account (while brief) comprehensive. In speaking of the micro-organism of syphilis, on page 9, Mr. Power describes the method of staining and demonstrating the *spirocheta pallida*. It has not been our experience, however, to succeed as easily as this paragraph would lead one to believe is possible. It is unnecessary to refer to the numerous aspects of syphilis in detail, but we know of no work that deals with the subject in such a concise manner.



The chapter on the "Treatment of Syphilis," by Col. Lambkin, where the whole subject is reviewed and brought thoroughly up to date, even in matters of treatment that have only been in use since 1907, has been handled critically and favorably. The use of compounds of arsenic in syphilis has been followed by some very striking and beneficial results. These are all pointed out in this chapter, and, while the subject is certainly new and in an experimental stage, yet theoretically it appeals to one, and is certainly entitled to much further investigation.

Dr. Wm. J. Gow, F.R.C.P., in a short chapter, deals with "Syphilis in Obstetrics," a most important aspect of the disease. The volume is illustrated in a very exceptional manner, and the typography and binding could hardly be improved.

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THE AFTER-TREATMENT OF OPERATIONS. A Manual for Practitioners and House Surgeons, by P. Lockart Munimery, F.R.C.S. (Eng.), B.A., M.B., B.C. (Cantab.), Senior Assistant Surgeon, St. Mark's Hospital for Fistula and other Diseases of the Rectum, and to the Queen's Hospital for Children, London. 3rd edition. London; Bailliere, Tindall & Cox, 8 Henrietta St., Covent Garden. 1909.

We are glad to welcome the third edition of this useful little book, which we find thoroughly revised and brought up to date. For instance, in the chapter on Shock, the experiments and observations of Dr. Crile are noted and practical use made of his conclusions. The volume is of the utmost assistance to anyone doing surgery, for it is founded upon the author's own experience.

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An advance notice informs us that the current issue of the *Annals of Surgery* will contain 344 pages, about two and one-half times the usual number, with a large number of illustrations, and at no additional cost to the subscribers.

The *Annals of Surgery* is undoubtedly one of the most progressive medical journals of the day. They spare no expense in illustrating articles and only secure the best articles. They have previously issued single numbers that were undoubtedly equal to volumes that would cost \$5.00. When we think that this journal does this frequently, and the subscribers to it receive that benefit, it is not surprising to know of the high standing of the journal. We are looking forward to the coming number, and we are satisfied that it will be the biggest and best yet.

*International Clinics.* A quarterly of illustrated clinical lectures, and especially prepared original articles on treatment, medicine, surgery, neurology, pediatrics, obstetrics, gynecology, orthopedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene and other topics of interest to students and practitioners, by leading members of the medical profession throughout the world. Volumes I. and II. Nineteenth series. 1909. Philadelphia and London: J. B. Lippincott Company.

Four times a year we have awaited the "*Clinics*" to find always some leading articles of the greatest interest, such as "Splénomegaly," by Parkes Weber, in Vol. II., or "Absorption From the Peritoneal Cavity," by W. G. MacCallen, in Vol. I., besides a large number of others to choose from, and something for every practitioner, no matter what his special interest may require. These quarterlies are so well known that they need no comment from us. They grow more valuable each year.

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*Writing the Short Story.* By J. BERG ESENWEIN, A.M., Lit. D. Editor of *Lippincott's Monthly Magazine*; author of "How to Attract and Hold an Audience." Cloth, 12mo. 448 pages. Price, \$1.25. Published by Hinds, Noble & Eldridge, New York.

Although this work is hardly in place on the desk of a medical journal, where there is scarcely time to *read* a short story, let alone *write* one, yet we have found many interesting and instructive points, which could well be assimilated by the contributors to this and other medical magazines. Mr. Esenwein has had a long experience as an editor, and he tells the writer-to-be, in twenty-five chapters, precisely what the story-teller should know.

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*A Handbook of the Diseases of the Nose and Throat.* By EUGENE S. YONGE, M.D. (Edin.), Physician to the Manchester Hospital for Consumptives and Diseases of the Throat; Physician to the Crossley Sanatorium. Edinburgh and London: Wm. Green & Sons, Medical Publishers. 1909.

Previously it was the criticism that English books (by which, of course, we mean British) were full of "good stuff," little of it stolen from other authors, but their book-making and illus-

trating were away behind the American publishers. However, the present volume refutes all this, the illustrations being thoroughly up-to-date. In fact, the publishers have done it not wisely, but too well," in at least one instance (plate X.), where they have unnecessarily given pictures of head mirrors. But the work, as a whole, is excellent, well written, and full of sane advice on the various topics which are discussed.

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*Elementary Practical Treatise on Diseases of the Pharynx and Larynx.* By DR. E. J. MOURE, Surgeon in charge of the Nose, Ear and Throat Department of the Faculty of Medicine, Bordeaux. Translated and adapted by J. MALCOLM FARQUHARSON, M.B., F.R.C.P. (Edin.); Lecturer on Diseases of the Nose, Ear and Throat in the School of Medicine of the Royal Colleges, Edinburgh; Surgeon, Ear and Throat Department, Royal Infirmary, and Senior Surgeon to the Ear, Throat and Nose Department of the Eye and Ear Infirmary, Edinburgh. With 210 illustrations. Price. \$4.00. New York: Rebman Company, 1123 Broadway. 1909.

In presenting this excellent work to the medical profession, Dr. Moure, while modestly offering it for the use of the general practitioner, has conferred a boon upon the specialist. The fact of confining himself to the narrower field of the pro-pharynx and larynx, has enabled him to enter more fully into the minutiae of the diseases of these organs. Possibly this detailing particularly in reference to the pharynx, may have been carried to excess, as the outcome of many years of experience devoted exclusively to the subjects with which he deals. On running rapidly through Dr. Moure's pages, one is struck with the wide difference which exists between some of his methods of surgical treatment and those of his English and American confreres, particularly in regard to pharyngeal disease. While the electro-cautery knife is with many going into desuetude, it is with Dr. Moure a much favored instrument. Whether he wants to open a peri-tonsillar abscess, or remove hypertrophy in lacunar tonsillitis, or destroy the vegetations of a pharyngeal lupus, or take away the enlarged faucial tonsil, or a calculus from a soft palate, it still holds its honored place, and after a long and wide experience he prefers it to all others.

While the writer's divisions of pharyngeal abscess are possibly too elaborate, his study upon the subject of the lingual tonsil opens up a new field, well worthy of keener investigation than it has hitherto received.



The division devoted to diseases of the larynx is brought down to the most recent date, Killian's methods of examination are admirably portrayed and described. Tracheoscopy and bronchoscopy are duly dealt with, as well as the double electrophotophore, the stroboscope.

Tumors of the larynx receive a fair amount of attention, and the whole work is well illustrated, many of the cuts being new.

If there is any serious criticism, it might be relative to the index. For instance: "Diseases and Traumatisms of the Larynx" are confined to a single chapter, covering 230 pages, while the index, alphabetically arranged, prevents the reader from making a classification for himself. Still, the book is gotten up in excellent form, and the translator deserves our thanks for placing so valuable a work from the French before us.

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### **The Ideal of Service.**

The ideal for you to realize is the ideal of service. Your very bill-heads will remind you constantly of this, for will they not read "Mr. John Smith, to John Jones, M.D., Dr. For Professional Services" so much?

It is a clumsy way of reckoning, however, for who can reckon in coin of the realm the service rendered by the saving of a precious life to kindred and to the community? Who can transmute into paltry dollars the care and skill and learning that shut the door on death? Moreover, to whom shall Flexner and Jobling or Rosenberger render a bill for "professional services to mankind" by the discovery of the antiserum for cerebro-spinal meningitis or by the discovery anent the tubercle bacillus? Who will pay it? No one! Remember that "only the lower things of life are sold; the higher things are always given."

The service you will render will always be a personal service, often at the expense of sleep, of comfort, of home joys, of recreation; but, believe me, it pays, as personal service always does. Remember that yours is not a trade, but a profession. "The object of a trade is to make money; the object of a profession is to bless mankind." This ideal of personal service can never be fully realized by others, or, indeed, rendered by others, but only by those of our own guild.—W. W. Keen in *J. A. M. A.*

Swabbing the throat with 20 per cent. iodine in glycerine will quickly relieve a pharyngitis.—*American Journal of Surgery.*

## Selections.

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**Pneumococcic Influenza.** By Prof. Curschmann, *Münch. Med. Woch.*

Influenza is clinically a term applied to various acute catarrhal conditions of the upper air passage, which are accompanied by more or less severe circulatory and nervous disturbances, are eminently infectious, and tend to assume endemic or epidemic proportions. The disease is attributed by pathologists to the organism known as the influenza, or Pfeiffer's bacillus, which has usually been found in previous epidemics. But the writer's investigations show that a disease clinically indistinguishable from influenza may be due to the pneumococcus of Fränkel.

In the autumn and winter of 1907 and the early spring of 1908 a complaint was prevalent in Leipzig which was universally regarded as influenza. The onset was usually marked by shivering or chilliness, and occasionally by a definite rigor. Almost all patients had violent headache, with general muscular pains, most marked in the lumbar or sacral regions. There was frequently great prostration from the first, and in half the cases complete anorexia. Gastric pain, nausea, and vomiting, were rare complications. In almost all cases there was pain in the throat, with marked redness and swelling of the pharyngeal mucosa. Not infrequently there were also coryza, conjunctivitis, and hoarseness. In every one of 77 typical cases seen at the hospital by the writer there was acute bronchitis with or without expectoration. The latter variety was the less common and was characterized by a violent spasmodic cough often resembling that of pertussis. Bronchial asthma, and occasionally emphysema, were also observed. In 17 of the 77 cases broncho-pneumonia occurred. The patches of consolidation were mostly small and scattered, and lobar pneumonia was rare. Cardiac symptoms among the younger patients were seldom disquieting, but among those with former heart disease and among the older patients they were often alarming. Twenty-two of the 77 patients were apyretic when admitted to hospital. In the remainder the pyrexial period varied from a few hours to three or four weeks. The duration of the disease varied, as a rule, between one and three weeks. Of the rarer complications pleurisy and peripheral neuritis with severe neuralgic pain may be mentioned. All the hospital patients recovered, but a considerable number of fatal cases, especially in elderly patients, occurred in the town.

The above is a description of typical influenza. But in not one of 49 cases, in which an exhaustive examination of the sputum was made, was Pfeiffer's bacillus present. In almost all (46) cases the pneumococcus was found. It was quite typical as to capsule formation, extracellular occurrence, and staining and cultural reactions. It was often present in almost pure culture and invariably preponderated so as to allow of no doubt as to its etiological importance. Streptococci and staphylococci were also occasionally present in small numbers. The diplococcus was virulent in mice, which died with the usual symptoms of pneumococcic pyemia. Pure cultures were obtained from the blood and tissues of the infected animals. That all the cases in this epidemic were due to the pneumococcus was shown by the fact that in the few instances in which a bacteriological examination of the sputum was made in Leipsig, outside the hospital the same result was obtained.

As this pneumococcus disease is clinically indistinguishable from influenza due to Pfeiffer's bacillus, Prof. Curschmann holds it best to retain the name of influenza even in the absence of the usual influenzal organism. Lazzatto has also reported a small endemic which occurred in the children's wards of the Graz Hospital. The patients, who were all under 3, had symptoms indistinguishable from influenza, but, instead of Pfeiffer's bacillus, the diplococcus pneumoniae was found. Influenza thus appears to belong to the group of diseases which includes dysentery and pernicious anemia, having more than one exciting cause.—*The Medical Review*.

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Pain in the back or extending down the leg, and sometimes simulating sciatica or lumbago, may be due to chronic prostatic disease. It is wise never to make an offhand diagnosis of sciatica until every source of possible reflex pain from local organic disease has been eliminated by careful examination.—*International Journal of Surgery*.

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In many instances where a patient is supposed to have merely a sprain of the ankle there is some fracture around or in the joint. Signs of fracture should be carefully sought for. Where nothing can be found around the ankle on examination and the patient still continues to complain of pain and weakness, a skiagraph may show a transverse fracture of the os calcis which is held in place by the flexor muscles.—*American Journal of Surgery*.



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## Original Communications.

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### THE SURGERY OF THE AUDITORY LABYRINTH.

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BY CHARLES M. STEWART, M.D., M.R.C.S. (ENG.)

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Although there has been operative interference on the auditory labyrinth since 1897, when Jansen gave his classical paper on this subject before the Medical Congress at Moscow, yet it is only within the last few years that deliberate and planned operations have been described for the relief of symptoms produced by labyrinthitis. To-day we have minutely described such operations as superior vestibulotomy, inferior vestibulotomy, double vestibulotomy, sequestrotomy, extirpation and curettage. For the scientific establishment of labyrinthine surgery, we owe much to J. D. Richards, of New York; Richard Lake, of London, and to Jansen himself.

My personal experience in this work is very limited, having only to do with four cases. The reason for selecting this subject was not that I have anything new to bring forth, but only that the paper might stimulate discussion and interest in labyrinthine work. I feel sure that a great many fatal mastoid cases have been lost on account of the surgeon neglecting to search for labyrinthine disease when he was doing the radical mastoid operation.

A most exact knowledge of the anatomy of the internal ear is essential before any surgical interference is undertaken. This can best be obtained by chiselling out a few labyrinths on the cadaver. The physiology of the internal ear is rather unsettled, particularly the vestibular part. The labyrinth is composed of two main parts—the cochlea, which contains a membranous structure, wherein is a specialized epithelium essential for

hearing; the vestibule and semi-circular canals, which also contain a specialized epithelium connected with static and dynamic equilibrium.

The labyrinth is situated in the petrous portion of the temporal bone. To its inside is the temporo-sphenoidal lobe of the cerebrum, covered by the meninges of the middle cranial fossa; behind is the cerebellum, covered by the meninges of the posterior fossa. The dome of the jugular fossa is directly below the vestibule and posterior semi-circular canal. The internal carotid artery lies directly in front and below the cochlea. On the inner side, lies the fundus of the internal auditory canal, with its meningeal prolongation, and so bringing the subarachnoid space in intimate relation with the modiolus of the cochlea. The vestibule is an ovoidal space, with the following dimensions: 1.5 in. x 1.5 in. x 1.8 in. In its roof, posterior wall and floor are the openings for the semicircular canals, while in front and externally is the first turn of the cochlea. The outer wall of the vestibule corresponds to the promontory on the inner wall of the middle ear, the tympanic part of the Fallopian canal and the two foramina, namely, ovale and rotundum.

*Facial Nerve.*—After the facial nerve leaves the fundus of the internal auditory meatus, it passes outwards and slightly forwards for 1.8 inch. Here it has an enlargement on it, called the geniculate ganglion. From this point, it passes backwards and downwards at right angles to the first part, and at an angle of 15 degrees with the horizon. This second part of the nerve is about 1.2 in. long. The middle portion of this part of the aqueduct is visible in the middle ear. Often this portion of the canal is incomplete, thus exposing the nerve in the tympanum. Below the nerve at this juncture is the foramen ovale; above it is situated the ampullae of the external and superior semicircular canals; to its inner side is the vestibule. The last 1.8 in. of this second portion of the facial nerve is buried in the posterior wall of the tympanum, and is just above and behind the pyramid from which emerges the stapedius muscle. The third part of the nerve passes downwards and a little outwards and backwards, making an angle of 120 degrees with the second part of the nerve. The third part of the nerve is in relation to the deepest part of the posterior meatal wall. The nerve leaves the skull at the stylo-mastoid foramen.

*Pathology.*—The vestibule is the seat of the greatest pathological activity. Infection takes place in two principal points, namely, the foramen ovale, and from an erosion in the external semicircular canal, as it lies in the inner wall of the aditus.

Inflammatory conditions in the labyrinth are due to the same variety of organisms that are found in middle ear suppuration. When it is a very virulent infection, the germ is usually the streptococcus pyogenes. Cholesteatomatous conditions are occasionally met with in the labyrinth, and tubercular labyrinthitis is fairly common in tuberculous suppuration of the middle ear. Caries and necrosis follow labyrinthitis, depending on the acuteness of the inflammation. Sequestra sometimes form, the cochlea may form one, but the vestibule usually goes with the semicircular canals. Death in labyrinthitis is due to intracranial complications—either meningitis or abscess of the brain. The tract of infection is usually along the filaments of the auditory nerve, and in this way the subarachnoidal space becomes infected. Hezold has estimated that labyrinthitis occurs in 1 in 500 cases of chronic suppuration of the middle ear. This seems a very small percentage, but this may be accounted for in that the cases most frequently occur in children, and as the symptoms are very vague at best, they are especially so in young children. In children the bone separating the labyrinth from the middle ear is thinner and less dense than in adults, thus explaining why labyrinthitis is more common in the first decade of life. In children with acute otitis media, you may suspect labyrinthitis when there is marked systemic infection.

*Symptoms.*—It is impossible to definitely diagnose labyrinthitis before operation. Symptoms which we consider point to labyrinthine involvement may be well marked, and yet when we do a radical mastoid operation, the labyrinth is found perfectly intact. On the other hand, fistulous openings may be found in the labyrinth when we least expect them. It is a serious matter to explore a healthy labyrinth in an infective area, such as in a mastoid operation. So it is good practice not to open a labyrinth that shows no external signs of disease. When doing a radical mastoid operation, the external wall of the labyrinth should always be carefully searched for fistulae. The use of adrenalin greatly facilitates a good view being obtained of the field of operation. A strip of gauze, previously soaked in adrenalin, and then packed in the tympanum and mastoid cavity, and left there three minutes will blanch the parts thoroughly. Carefully examine with a probe the foramina ovale and rotundum, also the promontory. The external semicircular canal, just opposite the aditus, is a common seat of a fistulous opening.

Symptoms which are useful in labyrinthine diagnosis are nystagmus, vertigo and disturbances in equilibrium.



*Nystagmus.*—The patient is never conscious of this condition, so this symptom must always be sought for by the surgeon. Pressure on the stapes will produce nystagmus, if the labyrinth is healthy. Bârány has worked out a caloric test for finding out whether a labyrinth is functioning or not. It is this, when syringing a middle ear with cold water, the eyes turn to the opposite side from the disease, and with warm water to the same side as the disease. In gross lesions of the labyrinth, it is impossible to produce nystagmus by heat or cold. Occasionally, following an ordinary radical mastoid operation, we note that nystagmus has developed, vertigo and disturbances of equilibrium. This is due most likely to luxation of the stapes, or injury to the external semicircular canal.

*Vertigo.*—This condition is produced by abnormal stimulation to the specialized end organs in the maculae and cristae of the vestibule and semicircular canals. Deaf mutes and animals who have had their labyrinths removed have no vertigo. Patients suffering with vomiting and vertigo, who have suppuration in the middle ear, is very suggestive of labyrinthine involvement. Cochlear lesions do not produce vertigo. Cochlear disease is manifested by deafness, which is a constant symptom; tinnitus is an occasional symptom.

This labyrinthine giddiness must be differentiated from the giddiness produced by cerebellar disease. This can usually be done by examining the eyes and noting the pulse.

*Rombergism.*—Patient standing on one foot, and eyes shut, sways or falls to the side of the diseased labyrinth.

*Gait.*—The gait is often characteristic. The patient walks with feet widely apart, sways considerably, and has a tendency to go to the affected side.

These symptoms are all marked for a few days when a healthy labyrinth has been interfered with; but when the labyrinth is gradually encroached upon by disease, the change is so gradual that the other organs in the body which contribute to keep perfect equilibrium take on the function of the diseased labyrinth.

Facial paralysis occurring in a case of suppurative otitis media is not uncommonly due to destructive changes in the aqueduct of Fallopius, and would be very suggestive of labyrinthitis.

There is no labyrinthine localization.

The following four cases I have notes of:

1. Tubercular labyrinthitis.

Woman aged 31 years. Suffered from chronic suppurative

otitis media in left ear for many years. Radical mastoid operation done. Result good; cavity dermatized and dry in seven weeks afterwards. In two years afterwards, patient developed phthisis, and shortly afterwards the ear began discharging again. In the pus were found tubercle bacilli. Facial paralysis developed, and the nerve could be seen when the ear was mopped out with absorbent cotton. The nerve became disintegrated and disappeared, due probably to the irritation of the pus, and to the spirit drops that were used. The patient was incapacitated by vertigo. The labyrinth was extirpated—semicircular canals, vestibule and a portion of the cochlea removed. Vertigo persisted for about ten days. Ear healed up perfectly. To-day patient is living, and looking very well. Vertigo is all gone. The facial paralysis persists.

2. Man aged 19 years. No previous history of labyrinthine trouble. In the course of performing a radical mastoid operation, a fistulous opening was discovered in the external semicircular canal; pus was oozing out of it. The canal was opened up to the ampullae and curetted. Not followed by vertigo. Second day afterwards patient sat up in bed and had ear dressed. No giddiness. Recovery uneventful.

3. Woman aged 36. Radical mastoid operation was being performed. Stapes seen in foramen ovale, and was very loose. Caries around the opening. Stapes removed. Inferior vestibulotomy done. Vertigo followed operation for about two weeks. Hearing destroyed.

4. Woman aged 41. Suffered with otitis media for twelve years. Facial paralysis for three weeks. Radical mastoid operation done. Large sequestrum picked out of the labyrinth. It was composed of portions of the vestibule and semicircular canals. Recovery uneventful. Facial paralysis persisted, but was nearly gone one year afterwards.

*Operations.*—The radical mastoid operation must always be previously done. The upper part of the skin incision should be made well forward, so that the auricle may be pushed well forward and downward. The facial ridge must be lowered as much as is considered safe for the nerve.

Operations on the cochlea are much more serious than on any other part of the labyrinth. The danger lies in injuring the modiolus, and so opening up microscopical channels for infection to be carried to the meninges. The cochlea should not all be removed. Only the lower two whorls at most should be removed, and special care taken not to injure the modiolus.

Both Jansen and Richards lay special stress on this point. Proceed to the cochlea by way of the promontory.

*Vestibulotomy.*—The vestibule may be opened by way of the external semicircular canal, and above and behind the facial nerve. This method is called superior vestibulotomy. Or it may be opened by way of the foramen ovale, which is below and in front of the facial nerve. This method is called inferior vestibulotomy. Although inferior vestibulotomy has the best position for drainage, yet superior vestibulotomy is the preferable operation, for the following reasons:

1. The region is more accessible.
2. There is less hemorrhage.
3. You obtain a better view into the vestibule.
4. You can explore the external semicircular canal at the same time.

Between these two openings into the vestibule is a ridge of bone, and in it is the facial nerve. Milligan has called this the bridge operation. The two operations should practically always be done together. The operation then is called double vestibulotomy. It is better not to expose the facial nerve, for in the after-treatment it is likely to become injured by the discharge from the granulations. Facial paralysis usually occurs if it is exposed. This may clear up in time, provided the nerve does not become disintegrated.

*Sequestrotomy.*—This was the first described operation on the labyrinth. Facial paralysis was the usual result. This was due either to disease or to the destruction done by removing the sequestrum. Suspect a sequestrum where granulations persistently re-form. Never remove a sequestrum forcibly. If necessary, chisel away healthy bone, so that the sequestrum may be picked out of its bed.

*Extirpation of Labyrinth.*—When this operation is done, it is usually for tuberculous conditions.

*Indications for Operation:—*

1. Labyrinthitis, as evidenced by one or more fistulous openings or other signs of disease in the external wall of the labyrinth.
2. Luxation of stapes. Jansen recommends operation after 24 hours if there is nystagmus, disturbances of equilibrium increasing, tongue coated and temperature going up.
3. Ménière's disease—labyrinthine apoplexy. Patients suffer with marked vertigo, intense nausea, severe tinnitus and absolute deafness. Richard Lake has reported five cases where he has



done an ablation of the vestibule. He operated for vertigo. The cases had never suffered at any time with otitis media.

4. A patient suffering with suppurative otitis media, and having vertigo, vomiting, nystagmus and disturbances of equilibrium, should have a radical mastoid operation done at once, and careful search made for labyrinthine mischief. In such a condition, a Heath's mastoid would be contra-indicated.

It is interesting to note that there is no weakness in the muscles of the body after operative interference with the vestibule and semicircular canals. Ewald experiments on animals showed that the labyrinth was responsible for the tone of the skeletal muscles. These operations support Crum Brown's theory, given many years ago, that the labyrinth is concerned in giving information as to the position of the head and body after rotation.

142 Carlton Street.

## "VILLUS TUMOR AND RUPTURE OF THE BLADDER."\*

BY HADLEY WILLIAMS, M.D., LONDON.

The two cases discussed in this paper are so rare that a physician may practice for twenty years and never see either, yet both conditions are among the most serious the surgeon is called upon to treat. Tumors of the bladder, though rare, are somewhat commoner than is supposed, since they give symptoms which are often mistaken for other diseases and, consequently, may be overlooked. It is not the intention of this paper to take up the pathology of the various forms or to discuss the diagnosis at any length more than to give the facts and enough of the symptoms to warrant the operation which was performed. Briefly, more than 50% of these tumors are malignant and next comes, in frequency, the villus papilloma which is often multiple, either sessile or pedunculated and from the size of a marble to an orange. Bleeding is nearly always profuse from the loose floating papillae of the growth, in fact, hemorrhage from the bladder is alarming. Even after removal they are said to recur in the majority of the cases and hence may be classed more with the malignant than with the benign tumors.

Mr. A. M. was a man 55 years old; by occupation a gardener; born in Suffolk, Eng. Family history negative. He admitted ague and gonorrhea twenty years previously.

In 1903 patient noticed blood in the urine on two occasions, but suffered no pain or other symptoms referable to the bladder.

In 1905 the bleeding recurred and lasted a week.

In January, 1907, he experienced a similar attack lasting the same length of time. A physician passed a sound which caused no pain or increase of bleeding, and the patient felt perfectly well during the intervals.

In October, 1907, the hemorrhage started again, and, with the exception of two intervals of a week each, kept up till February, 1908. The same physician again passed a sound without pain, but with a copious flow of bright red blood.

In February of last year patient consulted Dr. S. Agar, of Chatham, who wrote me concerning the case. "From the appearance of the urine and some shreds of tissue which came away,"

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\*Read at the meeting of the Ontario Medical Association

said the doctor, "and from the fact that there is no evidence of kidney trouble, no enlargement of the prostate and no calculi, I am satisfied that the patient is suffering from some growth in the bladder."

Early in February (in consultation at St. Joseph's Hospital, Chatham) the patient appeared a well nourished individual, bright and intelligent, slightly anemic and, though ill a long time, very brave as to the outlook. He had two marked symptoms and two only.

1. Profuse and constant bleeding.

2. Sudden stoppage of urine on a few occasions during micturition.

Indeed, he assured us that otherwise he felt perfectly well.

Operation was advised by Dr. Agar, Dr. Sullivan and myself and immediately accepted. Ether was the anesthetic. Twelve ounces of boric solution was allowed to be retained in the bladder after irrigation, and a supra-pubic incision made. Exploration of the bladder with the finger, a large, soft, spongy growth was felt on the left side, with a pedicle as large as the thumb, springing from the mucous membrane some two inches from the urethral opening. The bladder immediately filled with blood and there was some difficulty in stopping the flow. A good view of the interior was out of the question. The pedicle was clamped by a stout pair of pile forceps and the blood washed away, yet in spite of this the fingers still remained the organs of sight. The tumor was then deliberately twisted off, and proved to be as large as a medium sized orange, its papille spreading out in water, waving and moving like the arms of an octopus, and once again the bladder was filled with blood. Water, at a temperature of 135°, was poured into the cavity and the hemorrhage ceased immediately. Small tags of tissue were pared with scissors, a prostatectomy tube inserted, large enough to irrigate clots and debris which might afterwards form; a piece of gauze drained the prevesical space, and the upper angle of the wound was sutured with interrupted fish gut. Dr. Agar, who had full charge of the case, wrote six weeks later on my arrival home from Bermuda: "The patient had some urinary fever on the tenth day and a phosphatic scale came away three-quarters of an inch in length. There have been no other bad symptoms to speak of, except a great deal of mucous and sandy debris; the wound is now healed; urine, 50 ozs. a day; sp. g. 1012, acid in reaction, normal in color, and there has been no bleeding since the operation." The patient left the hospital on the 20th of March, six weeks almost to the day.



To date, fifteen months after, there has been no bleeding and no signs of recurrence.

There are many dangers attending a supra-pubic cystotomy. Cystitis, if not already present (and it is present in the majority of cases as a result of the very condition for which the operation is performed), almost inevitably occurs; mucus collects in large quantities, gravel often deposits and sticks to the edges of the wound, the fatty tissue breaks down, the fascia dies and tears away in pieces, and in old people especially with sclerosed arteries and some kidney complication uremia carries them off. For these the character of the tube is often to blame. It should be large enough to allow free irrigation and soft enough to cause no pressure on the sides of the wound. Urotropin is dangerous in 10 or 15 grain doses. It seems to cause sloughing of the wound and painful irritation of the skin. If given at all, 5 grain doses are sufficient.

There are three pertinent questions regarding this case:

1. The value of injections, astringents and the like, to allay hemorrhage or cause shrinkage.
2. The value of the actual cautery to the base of the tumor or excision and ligature.
3. The drainage of the bladder afterwards.

Regarding tumors of the bladder when, from their size or position, a supra-pubic opening is insufficient to properly deal with them, the peritoneal cavity should be opened and the bladder slit backwards a sufficient depth to properly deal with the case, always remembering the danger of septic peritonitis from contamination of the peritoneum at the time, or from subsequent leakage of the wound, to say nothing of the added shock to the patient from a more prolonged operation. The other case I wish to bring before you is one where the bladder was ruptured by a blow on the abdomen.

Rupture of the bladder is either intra- or extra-peritoneal. The former contains from 80% to 90% of the cases, and when it occurs, the tear is said to be very extensive. From whatever the cause, the bladder is usually full when a sudden blow is most likely to cause rupture. In a large proportion of cases, it results fatally, especially in the intra-peritoneal variety, and, in the absence of proper surgical interference, the extra-peritoneal likewise. Prior to 1893, thirty-two cases gave a mortality of 64%, while, since this date, twenty-two cases give only 28%, or nearly 50% on the total.

Mr. A. W. was a man 32 years old, who worked in a box factory, was of exemplary habits, and always perfectly healthy.

On September 19th, 1907, he retired at 11 p.m. At 5 a.m. on the morning of the 20th, while on his way to the bathroom (and scarcely yet awake), he took the first turning, which happened to be the wrong one, and fell headlong downstairs, the rounded top of the corner post of the landing striking him a severe blow immediately above the pubis. The bladder was full when he started, but when he picked himself up a few minutes later, all attempts at micturition were ineffectual. Dr. Ernest Williams, his physician, was called and ordered him to bed. There was very little pain, and shock was not a marked feature. Dulness was present about the pubis, but a soft rubber catheter only produced two ounces of bloody urine. In consultation at 5 p.m., there was marked dulness over the bladder, extending well above the pubis and laterally, and was somewhat irregular in outline. This was marked with ink. A catheter produced only three ounces of bloody urine.

We passed a marked quantity of boric solution into the bladder, and found we had lost three ounces. We tried again with six ounces, and left two ounces unaccounted for. The dulness over the lower part of the abdomen increased correspondingly above the indelible line. Dr. J. B. Campbell, who administered the chloroform later, concurred in our diagnosis, and the need of urgency.

Patient was immediately moved to the operating room, and a supra-pubic incision made in the usual way. After separating the recti, and pushing aside much adipose tissue, urine welled up into the wound and was mopped up with pads. The finger, inserted into the wound, entered a rent in the fundus of the bladder, torn transversely near the reflection of the parietal peritoneum, quite an inch or more in length. The superficial dulness immediately disappeared. No attempt was made to suture the somewhat ragged bladder wall, but a half-inch tube was inserted, and a smaller one into the lateral space, also a piece of gauze prevesical. The upper part of the superficial wound was sutured with interrupted fishgut, a No. 8 soft rubber catheter tied in the bladder, and the patient put to bed in the Fowler position. There was practically no suppression of urine. In five days the tubes were removed, also the catheter.

On the sixth day there were some severe chills, the temperature ran up to 105 F., and some pus was irrigated from the wound. Warm boric acid solution was used daily by irrigation through the urethra. On October 20th (one month later), the wound closed, the patient left the hospital and made an uneventful recovery.

The points to be considered in a case of this kind are:

1. An early diagnosis.
2. Urgent surgical interference.
3. A proper after-treatment.

The diagnosis is not inferred, alone, from absence of urine in the bladder, because shock may be so severe as to cause suppression; neither from a rise of temperature or blood in the urine, because these conditions are often present when no rupture has taken place; but that dulness was present above the pubis, even after the catheter had been used, and that measured quantities of boric solution flowing into the bladder failed to return when called upon, and not only failed, but increased the dulness previously marked out, was all evidence of the strongest character that rupture of the bladder had occurred.

Some advise the injection of air as an aid to diagnosis, but it seems a risky thing to force urine through a possible rent in the wall into the peritoneal cavity, when a mild aseptic solution, such as boric acid, answers equally well.

My reading of several cases of rupture of the bladder satisfies me that some of the fatal cases were those in which the surgeon endeavored to do too much rather than too little. A case is recalled to me, where a patient was operated upon for right inguinal hernia for the fifth time. Evidently adhesions had formed extensively, for the bladder was caught in the grasp of one of the sutures. Five days later, the peritoneal cavity gradually filled up with urine (two gallons, if a tablespoonful). The wound was reopened by the attending physician, a tube inserted and the patient recovered, to be operated upon again for the sixth time, doubtless, by some aspiring and adventurous doctor.

If this case of rupture of the bladder had been intra-peritoneal, the same immediate operation would have been necessary, double suture of the bladder wall, dry mopping of the peritoneal cavity with sponges, and retention of a catheter in the bladder.



## UTERINE CONDITIONS DEMANDING OR JUSTIFYING THE USE OF CURETTE.\*

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BY DR. CHAS. J. C. O. HASTINGS, TORONTO.

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One feels like offering an apology for presenting a paper or rather opening a discussion, on a subject so familiar to all engaged in obstetric or gynecological practice. The prevailing opinion seems to be that curettage, or scraping out of the uterus, is a useful, simple and positively safe operation. To the former, let me attach a green light, and to the latter a red one; and for a confirmation of the necessity of these danger signals, we require to glance but for a moment at the appalling list of casualties traceable to this operation, a report of which would afford a most profitable half-day's reading.

To what extent human life has been sacrificed and suffering intensified by the unskilled and injudicious use of the curette no one can say. I look upon curettage as one of the most formidable operations, and the one demanding the most scrupulous care of any operation on the female generative organs; yet the most inexperienced physician considers himself quite competent to perform it, and when about to perform any operation about the pelvis, the fact that the patient is under an anesthetic seems sufficient excuse for euretting the uterus. Herman, in an address or a lecture to the Polyclinic, in London, cited a very good example of this, even in a well recognized gynecologist, who had sent him a pamphlet describing what he considered a new operation for cystocele, in which he began by saying, "I first curette the uterus, etc." However, there are conditions that demand and justify the use of the curette, but I feel assured that the consensus of opinion of this section is that it should be more restricted than it is.

The use of the curette is demanded in persistent menorrhagia, or metrorrhagia, both for curative and diagnostic purposes, also in suspected cases of malignant disease of the body of the uterus. The information derived from the scraping of the uterus, and the microscopical examinations of the scrapings enables us to determine whether the uterine hemorrhage is due to endometritis, glandular hyperplasia, the remains of an abortion, tuberculosis of the endometrium, carcinoma, or sarcoma.

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\*Read at the meeting of the Ontario Medical Association.

On the value of the curette in the foregoing, I presume, there is no difference of opinion, for, in addition to the fact that it is indispensable in these cases, its use, with reasonable care, is comparatively free from danger. These are the conditions demanding the use of the curette. It is when we come to consider the use of this instrument in the puerperal uterus that we advisedly ask the question, When is its use justified? When one considers the pathological anatomy of puerperal infection, one naturally shudders at the sight of such headings as "The Surgical Treatment of Puerperal Sepsis," and "The Use of the Curette in Acute Puerperal Sepsis," etc. That the curette may be safely used to clean out the uterine cavity in carefully selected cases, after miscarriage or after the removal of an adherent placenta, I am willing to admit; but even these cases can be done quite as efficiently and much more safely in the majority of cases, with the finger.

It is difficult to conceive of more dangerous teaching than the indiscriminate use of the curette in the treatment of puerperal sepsis. I am sure that no one who has had any experience in the treatment of these cases has failed to notice the aggravation of the symptoms following any form of intra-uterine manipulation. Even the simple uterine douche is not infrequently followed by a severe chill and a rise of two or three degrees of temperature.

The danger of perforation of the uterine wall, resulting in general septic peritonitis. Cases are cited where loops of intestine have been caught by the curette, as has also the omentum. Mann, of Buffalo, reports an interesting case of this kind, in which a loop of the bowel was drawn down and torn across by the curette.

The greatest danger of the use of the curette in these cases, and the one, in my opinion, enough to condemn its use, is the almost absolute certainty of causing a generalized infection as a result of the tearing down of the so-called leucocyte zone, the opening up of new fields for absorption, exposing the mouths of blood vessels and lymphatics.

One reads, with fear and trembling, such papers as that presented by Knyvett Gorden on the treatment of severe cases of puerperal sepsis by active disinfection of the uterus by means of the curette and the use of izal, in which he claims to scrape away the entire endometrium down to the muscle. He then paints the interior of the organ with undiluted izal, and then packs the uterus with gauze soaked in a one-in-two-hundred izal solution.

He compares eighty cases treated thus with seventy-nine cases treated by general means and antiseptic intra-uterine douches. He reports a mortality of 20% of those actively treated as against 46% of those passively treated. In referring to the leucocytal zone, he makes the statement that in such severe cases as these such a barrier is not formed.

Before passing on, let us weigh carefully, or examine carefully some of Dr. Gorden's statements. In the first place, he claims to scrape away the entire endometrium. Post-mortem examinations in France and Germany of the curetted puerperal uterus have demonstrated that this is impossible, and this is the view held by most reliable obstetricians to-day. Next, the writer claims to have a mortality of 20% in those treated with the curette, as against 46% in those treated in the passive way. Such an appalling death rate is difficult to explain.

Ricard, of Paris, has recently estimated that the entire death-rate of severe puerperal infection is not more than 10%, drawing his conclusions from records of 2,640 cases.

Thirdly, the writer makes the statement that, in these severe cases, no leucocytic defence is put up. This opinion I don't think Dr. Gorden will find endorsed by many. I think it is generally conceded that, in all cases the wall of defence is put up, but the more virulent bacilli penetrate it. This is especially true of the streptococcus. Bumm has found that the streptococcus penetrates the uterine wall at the rate of 2 cm. in six hours.

These are the very cases that even some of the most ardent advocates of the curette look upon as unsuitable for this method of treatment.

I do not wish to single out Dr. Knyvett Gorden in connection with the operative treatment of acute puerperal sepsis, as there have been many able papers presented on this subject during the past five years; yet it seems to me, if we appeal to our own unbiased judgment in the treatment of these cases, after reading these papers, one is impressed with the application of the statement made by the late Dr. Fothergill, when called in consultation by one of his pupils. While they were waiting in the reception-room, the young physician gave a very complete summary to the old doctor of the wonderful results he had had from the use of the various new remedies, to which he replied in a very fatherly way, "My young man, by the time you have been in practice as many years as I have, you will be surprised at



the number of cases that will recover, notwithstanding the imprudent interference of the physician."

As you are all aware, it would be impossible, in the time allotted us for this subject, to give even a brief summary of the arguments advanced pro and con. The object of this paper is to obtain an expression of opinion of this Association on a subject of most vital importance.

We must therefore consider the subject most carefully, as there are strong supporters of the use of the curette, as well as opponents of it. It is our duty to give a decided expression of opinion after carefully weighing the dangers and the possible advantages.

## PAPILLOMATA OF THE LARYNX.

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F. L., Male, aged 3 1-2 years, entered the Hospital for Sick Children in December, 1905, for examination under an anesthetic, because of hoarseness and suffocative attacks, from which he had been suffering for some weeks. Upon admission, the boy was thin, poorly nourished, anxious in expression, and coughing frequently. Examination revealed, in addition to enlarged tonsils, numerous warty growths about the rima glottidis. A few of these were removed by means of a small sponge attached to a laryngeal probe, and an intubation tube inserted. The respiration being improved, he was discharged and kept under observation. In about four weeks he was re-admitted, as the breathing had become more labored, the temperature elevated, and bronchitic rales were abundant. Intubation gave immediate relief, and a few days later, when the general symptoms had improved, a tracheotomy tube was inserted in order to place the larynx at rest, with the expectation that this measure would result in a shrinking of the papillomatous outgrowths. Marked improvement followed for three weeks, after which the lung symptoms again caused uneasiness, and it was not until two months later (May, 1906) that removal of the tonsils became possible. Although, during the next four months, in addition to as complete voice rest as could be obtained, thorough tonic treatment of every variety, and residence at the Island Home were employed, repeated examinations of the larynx revealed no change in the size of the growths, the chest sounds remained unsatisfactory, and bloody mucus was intermittently expelled from the tube. There was improvement, however, in the general physical conditions.

Thyrotomy was now determined upon, and on the 10th of December, accordingly, the larynx was opened in the middle line. The growths were found projecting from the length of both chords, and massed up against the base of the epiglottis in the anterior commissure. These were carefully removed, the latter masses being pushed into view by the pressure of the finger applied through the mouth, and the basal tissue seared with pure chromic acid. At the same time a few granulation

warts were removed from the lower edge of the tracheotomy wound, and chromic acid applied. The thyroid flaps were accurately coapted with chromicised gut, and the tracheotomy tube left in place. The wound showed a tendency to slough, but healing was completed in about four weeks, although granulations below the trachea wound were very troublesome. When the tube was closed with the finger, the laryngeal breathing appeared quite free; but when the tube was removed, spasm and cyanosis were marked, due apparently to extreme nervousness on the part of the patient. On October 26th, the larynx was examined under anesthesia, and a large, pedunculated mass was found above and in front of the left arytenoid. Because of the unsatisfactory chest condition and elevation of temperature, operation was postponed, and at the end of a week the larynx was again opened, a mass the size of a bean removed, and lactic acid applied. As the pulse became almost imperceptible, and complete collapse was threatened, the operation had to be hastily completed; and as the larynx had shown evidence of stenosis, an intubation tube was inserted and the tracheotomy tube omitted. The tracheal wound was entirely healed by the 20th of November, but dyspnoea again supervened, and was found to be due to the recurrence of a small growth upon the right aryteno-epiglottic fold, which fell over the mouth of the intubation canula with every inspiration, and which was removed through the mouth.

For the next few weeks the chest symptoms gave rise to great anxiety; the temperature rose as high as 104 deg., and the patient was losing flesh. On the 28th December, the intubation tube was found firmly embedded by papillomatous growths, and a tracheotomy tube was again inserted. For the ensuing three months, the temperature chart showed an average daily variation of above  $1\frac{1}{2}$  deg., but the physical condition improved. However, further examination on the 2nd April revealed numerous papillomata, completely filling the larynx. The general condition of the patient continued about the same during the summer, with the same variation in daily temperature; but in July the boy contracted scarlatina, and was transferred to the Isolation Hospital.

In October, the bronchoscope was used to examine the larynx and trachea, and an excellent view was obtained. The left arytenoid was visible, but warty growths obscured the other parts, and similar obstructions presented themselves on the tracheal wall below the opening for the canula. The patient was allowed to reside at home, reporting regularly at the Outdoor



Service, and on the fourth of October, 1907, the following report was made: "Small fistula still present at the lower end of the neck wound, through which air escapes on coughing, etc.; no papillomata seen; the left ventricular band is large and uneven, and the right is apparently normal; the vocal chords are not seen; the interarytenoid space is white and smooth; voice is a coarse whisper; general physical condition improved.

At frequent intervals during his stay in hospital, the sputum was examined, but never was it possible to isolate tubercle bacilli. The bronchitic symptoms were distributed over both lungs, but especially in the sub-clavicular and the basal spaces, where coarse, moist and dry rales were heard.

It was never possible to examine the larynx without a general anæsthetic, and this was always administered with difficulty, the resultant depression being very great, while on the other hand the irritability of the respiratory tract rendered it almost impossible to proceed unless the anæsthetic were pushed.

This case forcibly illustrates the great difficulty met with in dealing with laryngeal papilloma in the young. Neither prolonged rest of the larynx, by tracheotomy and voice rest, nor complete removal of the growths by thyrotomy were effective in retarding the growths, or preventing their return when removed. Possibly, if the time of wearing the tracheotomy tube after its first insertion had been prolonged to a year, instead of six months, the result of the rest treatment might have become more beneficial; but at the time it seemed best to test the value of thyrotomy. A further communication upon this case will be given.

47 Grosvenor Street, May 12, 1909.

## Selected Articles.

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### THE OCHSNER TREATMENT OF APPENDICITIS.

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BY JAMES U. BARNHILL, M.D., COLUMBUS, OHIO.

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The great majority of physicians understand Dr. Ochsner's postulates, and "thousands of surgeons faithfully follow them" in treating appendicitis. The treatment has been publicly endorsed by the Mayos, Murphy, Morris, Matas, Richardson, Rodman and many others. Nevertheless, we hear it frequently stated that the treatment is misunderstood, that it is made the excuse by many physicians, for advising against operation, and that when carried out it often results in defeating an operation for the reason that the patient, feeling himself relieved, refuses to submit to the removal of the appendix.

At the last meeting of the American Medical Association, in 1908, R. T. Morris, in closing the discussion of his own paper on "Appendicitis," said, "The Ochsner treatment is one of the greatest points ever made in the history of appendicitis, but the Ochsner treatment, as comprehended by the average physician of New York, is damnable," C. E. Thompson said, in the same discussion, "The Ochsner treatment means, to the general country practitioner, do not operate; many of these practitioners have always been opposed to surgery, and now they assert that a great surgeon in Chicago is saving nearly all of his cases by not operating on them. The treatment has been misunderstood, and has thus been the cause of filling many untimely graves."

In the above statement of Morris we have the highest testimony of the value of the Ochsner treatment, together with his condemnation of the misuse of it by the average physician. While we do not believe there is such a lamentable misconception of the treatment here as Dr. Morris would lead us to believe exists in New York, yet I feel that there is such a degree of misunderstanding in reference to it as to justify a brief consideration of the subject at this time.

Ochsner described his treatment in full before the Chicago Medical Association, October 10th, 1900, giving in this original paper the results of eight years' employment of the treatment. At that time he set forth certain propositions in reference to

the treatment which were very widely quoted in medical journals. Greater prominence was given to his method when he presented it in his Chairman's address before the Section-on-Surgery at the Fifty-second Annual Meeting of the American Medical Association at St. Paul in 1901. He deserves great credit for systematizing the results of his own observation and experience, for calling attention to the admirable protection which nature affords the appendix by its anatomical surroundings, and for the danger occasioned by peristaltic motion in the small intestine. In his second paper he described (a) the attempt on the part of nature to close the ileo-cecal valve to prevent the passage of the intestinal contents into the inflamed area, (b) the movement of folds of the omentum toward and around a seat of injury, (c) the increased peristalsis occasioned on the introduction of food into the stomach, (d) the exudate and new formation thrown out by the peritoneum to wall off the inflamed appendix, (e) the harmful influence which cathartics exert by disturbing the inflamed tissues, and by carrying infectious material to other parts of the peritoneal cavity, (f) the toxic character of stomach contents, and (g) the danger of operation at the acme of septic intoxication.

We may best describe the treatment by giving his conclusions or postulates:

1. Patients suffering from chronic recurrent appendicitis should be operated upon during the interval.

2. Patients suffering from acute appendicitis should be operated upon as soon as the diagnosis is made, provided they come under treatment while the infectious material is still confined to the appendix, if a competent surgeon is available.

3. Aside from insuring a low mortality, this will prevent all serious complications.

4. In all cases of acute appendicitis, without regard to the treatment contemplated, the administration of food and cathartics by mouth should be absolutely prohibited, and large enemata should never be given.

5. In cases of nausea or vomiting, or gaseous distention of the abdomen, gastric lavage should be employed.

6. In cases coming under treatment after the infection has extended beyond the tissues of the appendix, especially in the presence of beginning diffuse peritonitis, fasting and gastric lavage should always be employed until the patient's condition makes operative intervention safe.

7. In case no operation is performed, neither nourishment nor cathartics should be given by mouth until the patient has



been free from pain and otherwise normal for at least four days. The same practice should be followed after operation.

8. During the beginning of this treatment not even water should be given by mouth, the thirst being quenched by rinsing the mouth with cold water and by the use of small enemata. Later, small sips of very hot water, frequently repeated, may be given, and still later small sips of cold water. There is danger in giving water too freely, and there is great danger in the use of large enemata.

9. All practitioners of medicine and surgery, as well as the general public, should be impressed with the importance of prohibiting the use of cathartics and food by mouth, as well as the use of large enemata, in cases of patients suffering from acute appendicitis.

10. It should be constantly borne in mind that even the slightest amount of liquid food of any kind given by mouth may give rise to dangerous peristalsis.

11. The most convenient form of rectal feeding consists in the use of one ounce of one of the various concentrated liquid predigested foods in the market, dissolved in three ounces of warm normal salt solution, introduced slowly through a soft catheter inserted into the rectum a distance of two or three inches.

12. This form of treatment cannot supplant the operative treatment of acute appendicitis, but it can and should be used to reduce the mortality by changing the class of cases in which the mortality is greatest into another class in which the mortality is very small after operation.

To conclusion 8 are now regularly added the method, introduced by Murphy, of administering a continuous enema of normal salt solution, and, in case of diffuse peritonitis, the Fowler position.

The clearness of statement in these conclusions should be a guarantee against misconception or misunderstanding, and the soundness of the principles upon which they are based should secure for them general recognition.

One misconception relates to the extent to which the treatment applies. Physicians generally seem to assume that the Ochsner treatment refers to fasting and rest, without reference to other phases of the treatment. They fail to note that the second postulate recommends early operation, when practicable, in all cases, and that other postulates cover indications for treatment of the severe as well as the interval cases.

There is no suggestion in these postulates that this treatment

is to serve as a substitute for operation. It is, from beginning to end, surgical, or a preparation for surgical measures. The starvation part of it should perhaps be called Ochsner's preparation rather than his treatment; for his treatment proper includes operation. We should bear in mind that the treatment includes preparation, operation and after-care.

It is difficult to account for the persistent misinterpretation of the author's clear statement of every detail of this treatment. The harm that some attribute to its employment is the result of its misuse rather than of any inherent defect in the treatment itself. Here, as in many other questions relating to medicine and surgery, good judgment is a *sine qua non*. Defective judgment, as we know, may make shipwreck of any treatment and of all opportunity.

Ochsner distinctly states that all persons who have suffered from an attack of appendicitis will sooner or later come to operation. The fasting and rest so strongly emphasized in the treatment has been of very great advantage to all surgeons, whether they operate early or late, for, as pointed out by Ochsner, many patients have recovered after operations because their surgeons have learned to give neither food nor cathartics after abdominal operations, so it may be said that they receive the treatment notwithstanding the operation. It is evidently to this phase of the treatment that Morris refers when he says that he prefers the quick operation, with fasting, leaving the patient to his opsonins and phagocytes.

During the eight years prior to Ochsner's first publication there were no uniform plans of treatment in reference to any of the types of appendicitis. And since that time the greatest difference of opinion and practice has prevailed. Many distinguished surgeons have helped very materially in establishing certain principles of treatment; some have emphasized the advantages of quick operation, with small incision, for a certain class of cases; others, the advantages of the intermuscular opening; while others have insisted upon early operation for all cases; but no one except Ochsner has succeeded in formulating rules applicable to so many classes and conditions of appendicitis. In his conclusions there are, of course, no rules assumed to be applicable to all cases, but certain important principles are enunciated which have a very general application, and which give to the treatment a distinctive character.

We may illustrate the advance made by Ochsner over much of the teaching of the day by a brief comparison of opinions on a few important points. Compare, for instance, his positive

and rational postulate that all cases seen in the first twenty-four or thirty-six hours, should, if practicable, be operated upon, with the teaching of the International Textbook of Surgery by Warren and Gould, which says that in many mild cases operation should be delayed until the acute attack has passed; or, with Robert's Surgery, which says, "If the symptoms show little increase in severity during the first twelve hours it is probable that the case will do well and that operation will not be required"; or with the English surgeon, Walsham, who says that, "in mild cases he would not follow the American dictum, to operate always within the first twenty-four hours, but wait and operate in the interval"; or with Vaughan's advice that, "if for any reason it is decided not to operate in the early stages of the disease, the patient should be freely purged with sulphate of magnesia"; or with Tiffany, who says that "the medical treatment should consist, among other things, of free purgation, and the appendix, provided the disease is advancing, should be removed, preferably within the first two or three days"; or with DaCosta, that, "in an ordinary mild case it is best to defer operation, experience showing that purging by means of Epsom or Rochelle salt is beneficial"; or with the American Textbook of Surgery, which says, "in cases of mild type, seen at the start, the treatment should consist, among other things, in moderate purgation by calomel in fractional doses, followed by salines or by castor oil and enemata." It will be seen from these brief quotations that in the matter of early operation, he is more radical than many of the so-called radicals, and infinitely saner in refraining from the use of purgatives and in the withholding of food.

A few quotations from the same authors will further illustrate the truth of the latter statement. Thus, Robert's textbook says nothing about dieting or fasting; Von Bergmann says only, that "the diet should be restricted"; Brewer, that "catarrhal appendicitis which has passed the acute stage may be treated by rest, ice-bag, catharsis and an opiate, if necessary, until the attack has subsided"; and Warren, who says that "when nausea and vomiting has ceased nourishment may, of course, be given."

The contrast between Ochsner's treatment of perforative and gangrenous appendicitis and that prevalent a few years ago, still advocated in most of our current textbooks and practised by many surgeons, brings the advantages of the former treatment into relief.

Von Bergmann recommends for these cases with pyrexia,



uniform distention, tenderness and rapid pulse, "operation, preferably not later than the second or third day"; DaCosta, "if there is marked tympanitic distention, operate at once"; Walsham, "In acute perforation, with gangrenous appendix, immediate operation gives the only chance, and in suppurative cases operate at once"; Rose and Carless, "In case of perforation in the first, second or third days, provided it is advancing, operate." American authors are not so ready to recommend prompt operation in this condition as they were a few years ago, doubtless largely due to Ochsner's teaching on this subject.

To review briefly the Ochsner treatment:—In all cases of acute appendicitis, all food, water and cathartics by mouth are prohibited. If nausea persists, gastric lavage is repeated once or twice at intervals of two or four hours. In all cases seen within thirty-six hours, which give no evidence of perforation or diffuse peritonitis, immediate or early operation is performed. In cases in which recovery seems doubtful, the operation is to be postponed and the Ochsner starvation preparation carried out, and in such cases a late operation is to be performed, with complete removal if infection is confined to the appendix, or if circumscribed abscesses have developed they are to be opened and drained. The advantage of this treatment is that there is almost no mortality. The patients are promptly cured, suffering is reduced to a minimum and complications are not liable to occur.

Another class deriving great advantage from this treatment includes those suffering from gangrenous or perforated appendicitis. These patients usually have high temperature, marked tympany and rapid pulse; there is complete obstruction of the passage of gas or feces, nausea or vomiting, and marked meteorism; the pulse is small and quick, respiration rapid, parietes over appendix tense. "The patient," says Ochsner, "is in the condition in which I formerly operated at once—day or night—as a last resort, only to find that it was too late in more than one-third of the cases, the mortality increasing with the time that had elapsed since the beginning of the attack." This is the class of cases of which Richardson has said, they are "too late for an early and too early for a late operation."

In cases of perforative or gangrenous appendicitis, with and without abscess, concerning which there is perhaps the greatest diversity of opinion, the Ochsner treatment has succeeded in greatly reducing the mortality. In a series of a thousand consecutive cases of appendicitis, reported by him, there were 55 cases of perforative or gangrenous appendicitis, with abscess,

belonging to this class; all treated by the starvation preparation, and subsequent operation without a death. In all of these cases food by mouth and cathartics were prohibited, gastric lavage was employed, exclusive rectal feeding was instituted and continued for one week or longer, until they were normal as regards temperature, pulse and absence of pain in the region of the appendix.

The operation was performed in most cases within four days after admission to the hospital; in others the period of preparation treatment was longer. In all cases the appendix was completely surrounded by omentum and new wall formation, effectually circumscribing the infectious material.

In the same series there were 117 cases of acute perforative or gangrenous appendicitis, with peritonitis and abscess, admitted to the hospital after the third day from the beginning of the attack. There were but four deaths. All of these patients had received, prior to coming to the hospital, cathartics and some food.

The mortality in these 172 cases of acute perforative or gangrenous appendicitis was only 2.9 per cent. It is in this class of cases that we formerly had such a high mortality, variously estimated from twelve to eighteen per cent.

Of twenty-six cases of acute appendicitis, with diffuse peritonitis, on entering the hospital, treated by this method and operated upon, there were but three deaths, a mortality of 11.5 per cent., against the very high mortality from the most favorable statistics of cases operated as soon as the diagnosis is made.

Of one thousand cases thus treated by Ochsner, from July 1, 1901, to April 1, 1904, including the cases reported above, the mortality was but 2.2 per cent. This list included seven cases of diffuse peritonitis not operated upon because they were in a dying condition when admitted to the hospital. Omitting these cases, there were 993 cases operated upon, with but fifteen deaths, a mortality of 1.5 per cent. Leaving out the 540 cases of chronic appendicitis and interval operations, Dr. Ochsner's percentage of mortality for operations, both early and late, in acute appendicitis is 2.6. Since then the mortality rate has been still further reduced.

About the time of the publication of Ochsner's report, Richardson reported his elaborate study of 750 cases in which operation for acute appendicitis was done by the rules then generally in vogue, showing a mortality of eighteen per cent.

My own results in applying this treatment have been most satisfactory, and have convinced me that the Ochsner treatment

of appendicitis is founded upon sound surgical principles—principles which apply in some measure to many other inflammatory processes.

The more carefully we study these principles, and the more clearly we see them worked out in actual practice, the more will we realize their truth and vital importance. The postulates should be studied as a whole, and they should be studied in connection with Ochsner's other classical and epoch-making papers and reports on this subject. Thus will the misconception, which to the shame of the profession is quite too general in reference to this treatment, be corrected. Then shall we realize that the Ochsner treatment is not a medical treatment, but surgical from beginning to end; that to withhold food and lavage the stomach is to secure rest and conserve strength; that to limit the peristalsis and thus give the inflamed appendix and its environment a rest, is just as rational as to splint a fracture or to exclude a light from an inflamed iris or retina.

Then shall we understand that the Ochsner treatment is no substitute for operation, but includes both preparation for operation and the operation itself, and that preparation here is just as essentially surgical as the preparation for other operations, albeit less mechanical. We shall then realize that the points urged in these postulates have a broad application, and, taken separately or collectively, are of vital importance, no matter what plan of treatment is followed.

Then we shall realize, too, that Ochsner is not timidly conservative but safely radical, for he declares, in these postulates, that patients suffering from acute appendicitis should be operated upon as soon as the diagnosis is made, providing they come under treatment while the infectious material is still confined to the appendix, and he is progressive and bold enough to delay operation in perforative and gangrenous cases until nature can wall off the infected area and raise the patient's power of resistance, while others are maintaining that immediate operation gives the patient his only chance.

And he is staunch enough and loyal enough to his convictions not to be persuaded into operating at an unfavorable time simply for fear that the patient, if relieved of pain, may refuse operation later.

At present almost all appendicitis patients have had food and cathartics before coming under the surgeon's care. This was true of Ochsner's one thousand cases. The physician sees them a day or two before the surgeon, and this is admittedly a critical time. With this treatment, notwithstanding the dam-



aging influence of food, water and cathartics, early operations have reduced the mortality to less than one-half of one per cent.; and in all cases it has reduced it approximately from 12 to 2.5 per cent. How much more might we reduce it if physicians generally as well as surgeons would all apply the principles of this treatment in the critical hours before the patient enters the hospital, as well as thereafter. Is it not rational to believe that we should thus still further reduce the mortality from this disease?—*Am. Journal of Surgery.*

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### MEDICAL EXPERT TESTIMONY.\*

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BY SAMUEL P. GOLDMAN, ESQ., OF THE NEW YORK BAR.

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The subject of medical expert testimony and its abuses, because of the prominence of certain supposed miscarriages of justice within recent days, has been brought all too prominently to the attention of the public. That there are abuses is now beyond question, but the general dissemination of meagre information on the subject should not lead to hasty, ill-advised, or poorly considered criticism. The laity naturally look to lawyers to remedy the abuse. Suggestions have been made in numerous quarters. Judges in the various States have put in concrete form their proposals of legislation upon the subject and it seems to the writer that the time is now ripe for a calm consideration of the subject and all its circumstances, to the end that some definite and practical step may be taken which will attack the abuse, if not in its entirety, at least in its most virulent form.

It will be noted first that medical expert testimony is used in cases other than criminal prosecutions. In a large class of litigations, such as will contests, actions to establish wills under the Code, partition suits and ejectment suits, well known to the civil law, the competency of a person to make a valid testamentary disposition of his property comes into question. In these cases the courts allow evidence to be given of acts and declarations of the deceased, and then upon a hypothetical question, embodying a fair resume of the evidence presented to the Court, a medical expert may be asked whether or not in his opinion the acts so testified to were or were not rational. In some cases, again, lay

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\* Read at the Medico-Legal Society at the Waldorf-Astoria Hotel, on March 17, 1909.

witnesses are permitted to answer an interrogation relative to the rational or irrational character of the acts and declarations of the person whose mental capacity is under inquiry.

Again, in cases based upon a claim of fraud, duress or undue influence, the courts have allowed medical expert testimony regarding the condition of mind of the person whose act is sought to be voided. In these cases also the testimony has been limited to the acts and declarations of the person, and medical experts have been permitted to characterize such acts and declarations. Of course, in both of the classes of litigations just mentioned, where a physical examination of the subject has been had, the medical expert making such examination has been permitted to testify to what he observed at such time, and, upon laying the proper foundation, he has been permitted to state the conclusions which he drew from such observations.

The third important group of litigations in which medical expert testimony has been employed is known as accident or negligence cases. Medical experts have been permitted to testify not only to their opinions as to the effect of specific injuries proven upon the trial, but, likewise, as to the character of these injuries with regard to the permanent or temporary disablement of the person injured.

In these civil cases medical experts have been largely employed for many years, and there can be no doubt that juries, as well as judges, have been influenced, and perhaps largely influenced by their testimony, in the determination of the various controversies before them, but it cannot be stated that this privilege of presenting expert testimony, or, more properly, this use of expert testimony, has become an abuse. In the cases where property rights are involved, the conflict has been no less keen than in the criminal prosecutions to be referred to hereafter. But it seems, and no doubt this statement will be verified by the majority of trial lawyers, that the employment of this kind of proof has worked out with sufficient satisfaction.

There are any number of reported cases to which reference might be made upon this subject. The writer was fortunate enough to be trial counsel in the matter of the contest of the will of Caroline Rumpf, deceased, tried before Surrogate Thomas, of New York County, a man of great ability as a jurist and of known fairness and impartiality. In this case but two medical experts were called, and they, strange to say, on behalf of the proponents of the will. These experts were men of standing, one of them a professor of general medicine at the Fordham University Hospital and Medical School. They testified to their

general observations and stated the conclusions which they drew. The Court seemed to be very well satisfied with this testimony, and delivered its opinion sustaining the will in a most decided manner. An appeal has been taken from this decision, and is now pending in the Appellate Division of the Supreme Court, but there is no doubt that the Appellate Court will sustain the Surrogate's determination.

A case in which the writer was not interested, but which came under his observation, was the contest of the will of a lady of extreme age. Medical experts testified before the Surrogate of Kings County upon both sides of the question. One side declared absolutely that the woman was *non compos mentis*, and the other side, with equal precision and decisiveness, testified that she was *compos mentis*. The lawyers in this case, undoubtedly familiar with the ill repute into which medical expert testimony has fallen, sought some way of turning the scales in favor of either of them, and they brought to court, not only the neighbors of the deceased woman, but the tradespeople who dealt with her, the cashier and teller of the bank with which she deposited her money, and all persons who had come in contact with her within a reasonable period before the time of the execution of the will and during a short time thereafter. These laymen were then interrogated as to what they had observed, and in some instances, characterized the acts to which they testified as rational or irrational. This testimony was received by the Surrogate, and was evidently given considerable weight.

Another case with which the writer is somewhat familiar is the case of Harrold vs. New York Elevated Railroad Co., reported in the 24th volume of Hun's Reports, at page 186. This was an action to recover damages for personal injuries. The question before the jury was the permanency of the injuries. In reviewing the case the General Term of the Supreme Court used the following expression: "The amount of damages to be awarded depended upon the degree of credence which the jury should give to the testimony of the experts on the respective sides. No question of the competency of these witnesses was raised. They were all of them gentlemen of high professional repute; and yet, on the turning point, namely, whether the plaintiff had sustained a permanent injury, the opinions expressed by the defendant's witnesses were diametrically opposed to those to which the plaintiff's witnesses testified. This contrariety of opinion ought, certainly, to add to the accumulating distrust of the testimony of experts in cases of this kind."

In spite of this apparently insoluble situation, juries seem to



master the difficulties, and, as a general rule, render satisfactory verdicts. The general notion undoubtedly is that where the conflict becomes so great, as it was for instance in the Harrold case, juries are apt to reject the testimony of experts altogether, and to apply their common-sense to the determination of the issues submitted to them.

The common-sense of juries is frequently derided by both lawyers and litigants as a vague quantity, but that it should lead juries occasionally to ignore medical experts entirely is no cause for wonder. The attitude of the courts is well illustrated by the case of *Dobie vs. Armstrong*, 27 App. Div. 520, where the Appellate Branch of the Supreme Court said:

“The experience of courts has demonstrated that the answers of experts, though honestly given, to hypothetical questions embracing pages of assumed and isolated facts covering a long lifetime, about which facts the experts have no personal knowledge, are the weakest and most unreliable kind of evidence in respect to the sanity or insanity of the person inquired about.”

So it comes to this, that in civil cases, the use of medical expert testimony, or its abuse, really regulates itself. Lawyers recognize not only the growing distrust, but the actual existing distrust to such an extent that they never fail to bolster up their medical expert testimony with such lay testimony as they know or believe will appeal to the judge or the jury before whom their cases are presented. It is now, therefore, only a truism to say that the matter has regulated itself, so that legislation upon the use of medical expert testimony in civil cases is hardly a necessity.

This situation, however, does not exist in criminal prosecutions. The belief, more or less prevalent in various sections of the country, that under peculiar circumstances one man may be justified in taking the life of another man, has led to the elaboration of a defence to criminal prosecutions wholly without the contemplation of the law. Private revenge can play no part in the jurisprudence of this or any civilized country. The moment a code of assassination is established anarchy reigns supreme.

The most familiar form in which this subject presents itself is what is known as the defence of the unwritten law to a prosecution for homicide, murder. Its method of presentation is this: As the law recognizes no responsibility in an insane man, after wreaking his vengeance, the defendant before the bar of justice sets up the claim that at the moment of its commission he was not mentally responsible for his wrongful act; that is, no matter how sane he may have been before he committed the act, and no

matter how sane he became after he committed it, at the time he committed it his mind was in such a condition that he did not know the moral quality of the act he committed; that he was not able to judge between right and wrong, and, therefore, he should not be subjected to the punishment prescribed by the Penal Code for his transgression.

Whether or not it is necessary for a man whose dignity, whose feeling, whose sense of justice, or what not, may have been outraged, to commit murder before he can recover his sanity may be, or may become, an interesting investigation for psychologists. Men dealing with practical sociological problems, however, can recognize but one standard, and that is that each member of the community must exercise that restraint without which communal existence is impossible. So we have this irreducible conflict. The prisoner endeavors to shield himself behind the doctrine of the criminal law that one not mentally responsible may not be penalized for his act; the State, on the other hand, presses vigorously the proposition that this doctrine of the law has no application to the defendant in the toils, because he was at the time of the act mentally responsible.

The various forms in which insanity is presented as a defence need not be gone into here in detail. Suffice it to say that the most frequent form in which we hear of it is what is called temporary insanity; that is, as heretofore stated, sane before the act, sane after the act, but insane at the time of the commission of the act.

This is where the conflict of the experts comes in, and it has not infrequently happened that a number of eminent and respectable physicians will testify one way, and perhaps an equal number of equally respectable and eminent gentlemen will testify to conclusions diametrically opposite.

Of course this is only the means by which the defendant is permitted to introduce before the jury the facts by which he seeks to justify his wrongful act, for, while the jury may not say that murder by a sane man is justified, they may say that these facts were calculated to produce insanity in the defendant, that they did produce insanity in the defendant at the time of the murder, and that, therefore, their verdict will be "not guilty."

Now, the difficulty seems to lie very largely in this, that a rich defendant is able to employ these expensive experts and the public believes or regards, in the language of Lord Justice Campbell, in the Tracy Peerage Case (10 Clark & Frost, 154-191, decided in 1839), that "the skilled witnesses come with such a bias on their minds to support the case in which they are em-

ployed that hardly any weight should be given to their evidence." It has been said, and perhaps the statement is not wholly devoid of truth, that the rich defendant gets experts and the poor defendant gets justice. It is the employment of these experts that now engages our attention, and the efforts of the learned gentlemen of the bar in the various States of this Union have been directed to abating the nuisance, for it is indeed a nuisance, of having medical experts of ability, and even of respectability, testify to diametrically opposed opinions.

The suggestion of the committee upon medical expert testimony of the New York State Bar Association recently submitted at its annual convention, is but one of the steps that have been taken. The legislation there proposed requiring the appointment of from ten to sixty medical experts in the four judicial departments of the State, would hardly seem to remedy the situation. Supposing that the Appellate Division of the Supreme Court in this, the first and most populous department of the State, appoints sixty medical experts; both the State and the defendant's counsel will undoubtedly be able to find one or more among these sixty who will testify the opposite of what others will. This probability of difference of opinion is not diminished by the fact that the State is expected to compensate them, and in an extreme case we can well imagine all sixty of the experts being called to court to give their testimony and opinion. Every defendant charged with the commission of crime in English-speaking countries has the inalienable right to call witnesses of his own choosing, and if there is a physician of ability and standing who has not been fortunate enough to receive the appointment of the Supreme Court as a medical expert, whose testimony would aid the defendant, there would seem to be no doubt that his constitutional privilege is violated if he is not permitted to present this witness and his testimony to the jury, upon the same plane that the testimony of any of the sixty experts appointed by the Appellate Division would be presented. Again, as this bill permits the defendant to call such experts as he may choose, whether appointed by the Supreme Court or not, it is difficult to see how any such legislation as is proposed will shorten the trial. In fact, its effect would seem more to the confusion of the jury than otherwise.

The remedy seems to lie in a wholly different direction. In order that the jury may really be assisted in determining the question, there must be some fixed standard of medical expert testimony; it must be non-partisan; the number of experts must be limited, so that the trial will not be unnecessarily prolonged,



and so that the jury will not be confused, and freedom and latitude should be allowed for the exercise of the fairest and widest discretion in the regulation of the medical expert testimony in each case as it arises. To accomplish this purpose, it would seem that an amendment to Section 658 of the Code of Criminal Procedure would be sufficient. The section, as it now stands, grants the Court, in its discretion, the right to appoint a commission of not more than three disinterested persons to examine the defendant who pleads insanity, and report to the Court as to his sanity at the time of the commission of the crime. (People vs. Mellvane, 125 N. Y., 109.) The proposed amendment makes it mandatory for the Court in which the indictment is pending to appoint this commission, and requires that the commission shall report with their opinion upon the sanity of the defendant at the time of the commission of the crime. The opinion of the commissioners shall thereupon be presented to the jury, and both the State and the defendant shall be given the privilege of cross-examining such commissioners in regard thereto.

This proposed amendment would seem to embody a correction of most of the evils which surround the subject. The discretion of the trial judge as to the appointment of commissioners is not confined to medical men, although it is fair to assume that the Court will select three physicians unless the case is peculiar and calls for other selection. Their impartiality will hardly be brought into question, as they will be paid by the county in the same manner as commissioners are paid under Section 658, as it now stands. Being appointed by the Court, they will not be partisan, and not being the selected witnesses of either the prosecution or the defence, they will not be influenced by the fever of belligerency or the zeal of advocacy. Fortified with evidence of this character, trial judges will be less prone to admit specious and ill-considered testimony, and as the trial counsel contemplates the overwhelming effect of the judgment of such impartial experts as are here proposed the temptation to proffer or countenance such specious testimony will be reduced to a minimum.

The limitation of the number of experts to be appointed by the Court to three is, of course, wholly arbitrary and has been fixed upon after a consideration of a large number of cases of public interest within the last two decades. It is safe to say that a mere multiplication of witnesses will not materially aid a jury in reaching a conclusion while it must be remembered that if the view of these three experts appointed by the Court is different to the view of the experts of either the State or the defence, testimony of additional experts will undoubtedly be pre-

sented, so that the number of experts who may possibly testify will be doubled or trebled.

The appointment of the experts by the trial court would seem to have considerable advantage. The function of the Appellate Division as a court of review should be maintained. When a case is brought before them upon appeal, it is but fair that they should consider the testimony of the medical experts upon the same plane as they would the testimony of other witnesses. And, as it is only natural that the higher court should look with more favor on the testimony of its own appointees, such uniform consideration might not always be given. Again, the selection of medical expert witnesses by the trial court will undoubtedly result in as good a choice as if made by a higher court, for the opportunity of both the State and the defence to select the foremost physician as their own witness will undoubtedly keep the Court mindful of the necessity of choosing such men only as may fairly be ranked among the foremost in the profession, while their service is assured by permitting the Court to fix their compensation, just as it is permitted to do by Section 658, as it now stands.

In conclusion it should be stated that it is not hoped by the proposal here made to do away with the evils of the situation in their entirety. It is believed that so desirable a result is impossible; at least, no proposal has come to our attention that would seem to accomplish this end, but most of the evils can be obviated, and as the legislation here proposed is believed to come nearest to effectuating the purpose in view, it is hoped that this honorable and learned body will lend the great influence of its name and sponsorship to its enactment.

AN ACT to amend section six hundred and fifty-eight of the Code of Criminal Procedure, in relation to inquiry into the insanity of the defendant before or during the trial, or after conviction.

The people of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Section six hundred and fifty-eight of the Code of Criminal Procedure is hereby amended so as to read as follows:

Sec. 658. When a defendant pleads insanity, as prescribed in section three hundred and thirty-six, the court in which the indictment is pending, instead of proceeding with the trial of the indictment, *shall* appoint a commission of not more than three disinterested persons to examine him and report to the court *with their opinion* as to his sanity at the time of the commission of the crime. *The opinion of the commissioners may be*

*presented to the jury, and the counsel for the State and for the defendant may cross-examine such commissioners in regard thereto.*

If the defendant in confinement, under indictment, appears to be, at any time before or after conviction, insane, the court in which the indictment is pending, unless the defendant is under sentence of death, may appoint a like commission to examine him and report to the Court as to his sanity at the time of the examination.

The commission must summarily proceed to make their examination. Before commencing they must take the oath prescribed in the Code of Civil Procedure to be taken by referees. They must be attended by the district attorney of the county, and may call and examine witnesses and compel their attendance. The counsel of the defendant may take part in the proceedings. When the commissioners have concluded their examination they must forthwith report the facts to the Court, with their opinion thereon.

Sec. 2. This act shall take effect, etc.

The additions and changes are indicated by the *italics*.—*Medico-Legal Journal*.

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## THE PATHOLOGIC ANATOMY AND PATHOGENESIS OF ACUTE APPENDICITIS.\*

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After several years of extensive and systematic study, Aschoff, one of the best-known pathologists in Germany, has published a monograph on appendicitis\* which is of great importance because of its scope, its thoroughness and the apparent finality of some of its teachings. It may be of interest to discuss briefly some of the more striking results reached.

In the first place, Aschoff made a thorough study of the normal appendix at various periods of life, using for this purpose the most approved methods. In the new-born, the appendix does not contain any lymph follicles in the submucosa, and the lining is not folded, but during infancy and childhood the lymphatic tissue in the submucosa greatly increases, the muscularis mucosæ becomes better marked, and the mucous membrane folded. In the adult the mucosa presents quite definite furrows,

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\*Die Wurmfortsatzentzündung, 1908.



partly longitudinal and partly transverse, and the submucosa consists of lymphatic tissue with follicles of varying sizes and numbers, these being most marked toward the distal end.

Anatomically, Aschoff regards acute appendicitis as always one and the same disease, the different anatomic forms simply representing various stages in development, or special complications. A superficial catarrhal appendicitis is not recognized; the attack is held never to begin as a diffuse surface inflammation, but always as one or several foci of primary infection in the crypts and furrows of the mucous membrane, and in the subjacent tissue outside of the lymphatic follicles. The first change is a subepithelial accumulation of neutrophilic leucocytes in the bottom of a furrow, corresponding to which there is a small defect in the epithelial lining. In this stage, bacteria are found only about the defect, and not deeper down in the wall of the appendix. There is also more or less diffuse leucocytic infiltration, which spreads out more broadly toward the serous coat than towards the mucous side. Later, in the next stage, various primary foci may coalesce, and the muscular and serous coats now become more or less diffusely infiltrated with leucocytes and serum. Most instances of acute appendicitis do not pass beyond this stage, the stage of diffuse inflammation, but subside rapidly.

In case the inflammation progresses, small abscesses form in the wall, which may perforate into the lumen of the appendix and thus give rise to ulcerations; or the perforation may take place into the peritoneal cavity. In some instances, the submucosa may be so riddled with abscesses that the mucous membrane is loosened (appendicitis dissecans). Ulcerations arise practically always from purulent softening of the mucosa, beginning in the bottom of the furrows, and thence spreading, a fibrino-purulent deposit being often present. The softening may spread into the outer walls of the appendix and give rise to larger perforations. The necrosis preceding the softening is caused partly by the toxic action of the numerous bacteria present, and partly by thrombosis of the lymph and blood-vessels. Quite typical anemic and hemorrhagic infarcts may form, most often opposite the mesenteric attachment, because the blood supply in this district is poorest. On entrance of putrefactive bacteria the necrosis passes into gangrene.

Aschoff distinguishes three kinds of perforations of the appendix; perforations of miliary intramural abscesses, perforations caused by more diffuse purulent softening of the wall, and perforations associated with gangrene, the latter being the largest.

As stated, acute appendicitis begins in the bottom of the normal furrows of the mucosa, the localization often being determined by obstacles to the current of its contents, as, for instance, behind a bend in the appendix. Aschoff found small fecal stones only three times in normal appendices, otherwise always in diseased appendices; hence the calculi may be regarded as rather a consequence than a cause of appendicitis, the diseased appendix being less able to dispose of the feces and mucus than a normal one. In the previously diseased appendix, calculi are of importance, as they may cause retention, both in the part behind them as well as in the part immediately in front of them, in the latter case because regular contractions of that part of the wall of the appendix cannot take place, and thus maintain conditions favorable for continued re-infection. Accordingly, inflammation is oftenest found behind the calculus, occasionally immediately in front, but, so says Aschoff, not at the points at which it comes in contact with the mucous membrane itself; but, as the wall of the appendix is often stretched over the calculus, and the nutrition consequently is not so good at that point as elsewhere, necroses are likely to occur here and lead to the large perforations seen about calculi.

Without entering into any of the details of the healing processes, suffice it to point out that acute primary infections may heal without leaving any trace; that diffuse cellular infiltrations often lead to thickening of the serosa and intermuscular septa, and that ulcerations give rise to scars on the mucosa with deformities of the lumen. More or less actual obliteration of the lumen takes place (58 times in 290 cases), the proportion of such cases being greatest in the fourth and fifth decennia. The most pronounced narrowing and cicatricial occlusions are always found behind a calculus or a bend in the appendix. Now the reparative processes after an acute attack may be prolonged on account of such changes in the lumen and on account of the presence of fecal calculi. The latter may prevent granulating surfaces from coming in contact, and that is one reason why calculi have been and are regarded as a direct cause of ulceration.

There is, according to Aschoff, no evidence that a primary chronic appendicitis exists; the cases described as such probably are acute inflammations in process of healing; and the so-called physiologic obliteration of the appendix, on which stress has been laid, is also denied, because all obliterations he studied were associated with changes indicating pre-existing inflammations.

As for the etiology of appendicitis, Aschoff, from his work,

finds no evidence whatever in favor of acute appendicitis in the usual sense arising from hematogenous infection. Micrococcal emboli in the lymph follicles of the appendix occur only in pyemia, and the blood is said to be sterile in acute appendicitis. His tenet is that acute appendicitis originates from enterogenous infection of the mucous membrane at the bottom of the furrows in the mucosa. If appendicitis develops after tonsillitis, which clinically there is reason to believe may occur, then the infecting germs probably are transferred to the appendix by way of the intestinal tract, and not by way of the blood.—*Jour. Am. Med. Assoc.*

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### Calcium Lactate for Lymphatic Headache, Urticaria, etc.

Urticaria, chilblains, lymphatic headache, and the like are associated with a condition of defective blood coagulability, and it is generally recognized that any lesion that can be included under the general term of serous hemorrhage can often be greatly benefited by the oral administration of calcium salts. The preparations best adapted for this purpose are the chloride and the lactate, and of these the latter has the advantage that its organic radicle is readily oxidized in the system, with the result that the base remains more fully at the disposal of the organism than is the case with the chloride. It is important, however, that the lactate should be freshly prepared, since it decomposes when kept any length of time. For adults the dose is 15 grains, flavored with  $\frac{1}{2}$  to 1 minim of tincture of capsicum, and made up to the ounce with chloroform water. The treatment should be continued for six weeks at a time, three doses being given daily about an hour before food. More than half the cases of chilblains so treated are rapidly cured, though a repetition of the course may be required the next winter. Other affections in which similar treatment has proved very beneficial are boils, headache of the lymphatic type, urticaria, face-flushings, acne rosacea, and perspiring hands and feet with offensive perspiration. If constipation should result from the use of the calcium, it may be corrected by giving a small dose of infusion of senna pods at bedtime.—*The Hospital*.



# Progress of Medical Science.

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## MEDICINE.

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IN CHARGE OF W. H. B. AIKINS, F. A. CLARKSON, AND BREFNEY  
O'REILLY.

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### Primary Carcinoma of the Lungs.

Garbat reports one case, a study of which has convinced him that while pulmonary alveoli and bronchial mucous membrane show no neoplastic tendency, there is conclusive evidence that this primary carcinoma of the lungs originates from the mucous glands of the smaller bronchi still containing cartilage. Several clinical features in his case deserve mention. The patient gave a history of distinct hereditary predisposition to tuberculosis. Several old tuberculous lesions were found in the left apex. This coexistence of tuberculosis and carcinoma of the lungs, although denied in general by Rokitansky, is not at all rare. Wolff described 31 cases of carcinoma of the lungs, of which 23 were complicated by tuberculosis. Schwalbe described 10 cases, of which 3 were complicated by active tuberculosis. Furthermore, Friedländer, Hildebrand, Seigert and Ribbert described cases of carcinoma developing in tuberculous portions of the lung.

The clinical diagnosis of tumor of the lung was made rather late in the disease. The probability of tuberculosis seemed so great that one was inclined at first to favor this diagnosis rather than that of carcinoma. The asymmetry of the chest, the diminished expansibility of the affected side, the bloody pleural fluid, and the persistence of dulness after evacuation of the fluid, speak for both tuberculosis and carcinoma. The fact, however, that the apices remained practically clear while the process was localized entirely at the right base, and in addition to this, the absence of tubercle bacilli, should have suggested strongly the diagnosis of carcinoma. The sputum examination, too, proved interesting. The sputum was examined almost daily, and the only almost constant finding was blood. Naturally, it was profuse and mucopurulent. The variously described so-called characteristic "granule cells" ("Kernzellen") for carcinoma of the lungs were not found. As a rule, in a man over 50, profuse expectoration which almost constantly contains blood and

no tubercle bacilli, associated with physical signs denoting some abnormal lung condition, should always make one very suspicious of neoplasm.

Two complications which arose—the abscess of the lung and the empyema of the gall bladder—masked the diagnosis in the lungs to a great extent; but the fact that even after those operations, the patient did not get any relief, but became progressively worse, spoke highly in favor of an underlying malignant condition. When stenosis of the air-passages became sufficient to produce symptoms, the diagnosis became more evident; but this, as usual, came late in the disease. Summing up the age of the patient (64 years) the bloody pleural fluid, the persistence of dulness after tapping, and the constant presence of blood in the sputum without tubercle bacilli, there was enough ground for making the diagnosis of carcinoma of the lung.—*Am. Jour. of Med. Sciences and J. A. M. A.*

### Carriers of Bacilli and Propagation of Typhoid Fever.

Although it is well established that most cases of typhoid are due, not to the use of contaminated water, but to direct or indirect contagion by means of carriers of bacilli. Baumann considers it opportune to make known the latest observations on the subject. Bacteriological investigators are all unanimous in showing that typhoid fever is a primary bacteriemia; that the bacillus which produces it penetrates the gall-bladder, in which it finds a suitable soil; thence it is continually carried into the intestine. The feces and the urine remain for a long period after the cure of the fever, contaminated by the bacillus of the fever. One must also consider the cases in which the typhoid infection has been so light as to pass unobserved, making these cases the most likely ones to carry infection. The author refers to a man, 66 years old, in whose factory 16 persons had labored or dwelt. These were all, in succession, stricken down by typhoid fever within a period of ten months. This man suffered from hepatic colic, a frequent symptom in those who have once had typhoid fever. From his dejections there was isolated the bacillus of Eberth. Examining these 16 cases, it is quite evident that there was no other source of infection.—Translated from *Giornale Internazionale delle Scienze Mediche*, by Harley Smith.

### Nitrous Oxid and Oxygen Anesthesia.

C. K. Teter, Cleveland, Ohio (*Journal A. M. A.*, August 7), gives his experience with nitrous oxid and oxygen anesthesia. He first gives a sketch of the history of this method, crediting the

first reported cases in which it was used to Dr. E. Andrews of Chicago, who, however, did not use it to any great extent. It was studied by Paul Bert, but its extended use is more due to Dr. F. W. Hewitt of London. Warming the gas improves its effects and safeguards best against postoperative bronchitis or pneumonia, besides requiring a much less volume of gas to produce the narcosis. The elimination takes place principally through the respiratory tract, and a patient with good circulation will come out of the anesthesia very quickly. It has been advised against in brain surgery, but with the proper addition of oxygen he has never had any difficulty with it. If air is used instead of oxygen there is less asphyxia, but the anesthetic effect is diminished. He reports cases in which the effect on the brain was directly observed, showing, in his opinion, that the discoloration and dilatation were not due to the anesthetic, but were purely asphyxial manifestations. The asphyxia, moreover, is not dangerous as compared with that from ether or chloroform. Several cases are reported also, illustrating points of special interest, such as strength of narcosis, the effects of age of patient, physical condition, primary shock, etc. He has kept a patient under this anesthetic for several hours, and considers it safer in this respect than any other of the general anesthetics, without exception. The aged as a rule are good subjects, but in children it is best to watch the symptoms closely, as the effects are very rapid. It is not always best to continue with nitrous oxid and oxygen under all circumstances, for, in some cases, it may be impossible to retain the desired depth of anesthesia. In some cases it may be better to change to a more stimulating or tolerable anesthetic, either in combination or sequence. He has had a few cases showing shock, probably more than would be noticed with other agents, owing to the fact that the nitrous oxid was selected on account of abnormal conditions present. He has had but one fatality which he reports, and that was due to shock and primary cardiac failure. He emphasizes the importance of continuous auscultation and describes his method of performing it during an operation with an improved Kehler stethoscope, which is especially adapted for the purpose. One of the main objections to nitrous oxid is the rigidity encountered in about 10 per cent. of cases, and his best results in meeting this difficulty were obtained with an injection of from  $\frac{1}{4}$  to  $\frac{1}{2}$  grain of morphin sulphate and from 1-100 to 1-150 grain of atropin, injected half an hour before the operation. He does not advise the use of morphin as a preliminary, however, to anyone not experienced in this method of anesthesia. The apparatus and the technic for this



operation are described, together with the variations required when operating on the mouth and throat. The dangers are enumerated in some detail. The principle one is asphyxia. But he believes that nitrous oxid can produce death without the asphyxial element coming into it at all. Ordinarily, the cyanosis is not so severe as to be very objectionable, the principal result being a postoperative headache. Another undesirable symptom is tetanic cramps in the arms, hands, feet, and legs, but in every case in which this was observed the patient's physical condition was either bad or he was of a neurasthenic temperament, or both. Blood pressure is slightly raised during nitrous-oxid anesthesia, and this point and other effects on the blood have been brought out by Hamburger and Ewing. Their experiments, the author thinks, prove that nitrous-oxid anesthesia does not reduce hemoglobin and thereby cause anemia; that it does not increase hemolysis, and that what apparent change it does produce is transient and of no clinical significance, and that nitrous oxid causes no permanent effect of any significance from the standpoint of blood changes. The advantages are the freedom from nausea and vomiting, the better after-effects, and fewer complications retarding recovery.

### **The Science of Clinical Medicine.**

S. J. Meltzer, New York (*Journal A. M. A.*, August 14), thinks that clinical medicine as a science should be taken up, apart from the practice of medicine, by investigators who will give their whole time and attention to the subject. The objection may be made that its conclusions cannot be verified by experiments, and this he meets by asking whether the science of biology or that of geology are not similarly disqualified from the rank of pure sciences because some at least of their problems are not amenable to experimental proof, and is not physiology itself less precise than physics and chemistry? The men who should carry on the researches in the science of clinical medicine should have the scientific spirit and training and devote the best part of their time to the cultivation and elevation of this field. Without the development of such a department of clinical science, the efficiency of the practice of internal medicine will lag behind, no matter how progressive the allied sciences of medicine may be. Taking up the actual state of affairs, as regards the subject, neither abroad nor here do we find a separate class of investigators confining their activity solely to the domain of clinical medicine. Everywhere science and practice go together. He says, however, there is a vast difference in the status of medical

research here and abroad, and he takes Germany, for example, as an illustration of the keeping the main stem of medicine scientific in spite of its differentiation into the various specialties. There the clinicians do not master the immense knowledge and manual skill which contemporary clinical medicine demands, but nearly all of them are themselves diligently adding new facts to the store of medical science. The secret of their scientific success is that science is the first and practice the second object of their lives. With most of the leaders of medicine in Germany the task of gaining and diffusing knowledge receives their first attention and consultation and practice comes in last. The scientific spirit rules their institutions and instruction, and the government, no matter what its political ideals may be, never loses sight of the fact that the cultivation of science is one of the greatest assets of a people. Here, he thinks, the factors favoring the scientific spirit are nearly all lacking, though in spite of this medicine has risen to a certain commanding position, at least at certain periods. Latterly, however, while the special sciences of medicine have gained a strong foothold in this country, clinical medicine has not advanced with an equal step; has, in fact, suffered from the advance of the others. The brainy men now devote their energies to the pure sciences or the specialties, and the greatest evil of them all is the deplorable fact that in most instances internal medicine is taught in this country by very busy consultants, who can give only a small fraction of their time and mental energy to this side issue of their lives. Teaching medicine and furthering it as a science should be carried on by men who are ready to devote all or most of their time to it. The progress of clinical medicine in this country must be accelerated again. He would recall this obligation to the minds of those called to chairs of medicine in important schools. They are not absolutely prohibited from practice, but they should beware of its temptations.

## SURGERY.

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IN CHARGE OF EDMUND E. KING, GEORGE A. BINGHAM,  
C. B. SHUTTLEWORTH AND F. W. MARLOW.

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### **"A Review of Proctologic Literature from May, 1908, to May, 1909.**

Dr. Samuel T. Earle, of Baltimore, Md., at the meeting of the American Proctologic Society.

Among the interesting conditions referred to in the review by the author were the following: "Congenital Idiopathic Dilatation of the Colon" (Hirschprung's Disease). In Dr. Finley's report of his case he reviewed the literature of the subject to January 1st, 1908, and collected some two hundred and six cases, after which he stated that while to Hirschprung belongs the credit of having first called attention to this disease, a number of cases had been found in the literature antedating his classical description. In the article Dr. Finley discussed the various hypothesis as to the etiology of the disease and some ten theories, which have been suggested from time to time, as the causation of the malady, including that of hypernutrition, which was the author's principal theory. His conclusions as to the etiology of the disease were that no one theory apparently explained every case; that each one explains some.

The symptomatology was described and a complete clinical picture of the disease given, with a list of a series of cases discussed in the Johns Hopkins Hospital—eleven in all. Regarding the treatment, the author concludes that no one plan seems applicable to all cases, and suggests the method employed in his own case as perhaps the one most applicable to the large proportion of cases, to wit: a preliminary enterostomy; then a colocolostomy some months subsequently; finally a complete excision of the affected portion. This artificial anus is left open until after the success of the proceeding steps are assured when it should be closed under cocaine anesthesia.

Another case of interest reported was that of a "*Sarcoma of the Rectum in a Boy*," aged ten years, by Cecil Rountree. (Proceedings Royal Society of Medicine, February, 1908.) The pathological examination showed the tumor to be a mixed cell sarcoma. Of five hundred and ninety-six cases analyzed in the Cancer Research Laboratory, of the Middlesex Hospital Reports, there were only six cases under thirty years of age—the age of



the youngest, a boy of sixteen years, who had a sarcoma of the rectum. There are likely to be many metastasis in sarcoma of the rectum. This malady is rare at any age.

Attention was called to the article of Dr. Charles O. Files, of Portland, Maine. (*New York Medical Journal*, Vol. 87, p. 1154), in which he considers that there are two important factors that should be studied in connection with the "*Treatment of Pruritus Ani*." These are an analysis of the contents of the rectum and the physical condition and mechanical efficiency of the sphincter ani muscles—external and internal.

The normal feces contains about 73% of water. This water holds in solution various volatile, fatty acids, and probably other irritating excrementitious substances. During the retention of the feces in the rectum a considerable portion of the water disappears. In prolonged constipation the feces become hard and dry, some of the fluid passes by osmosis into the cellular tissue about the anus and thence to the skin. The liquid feces are very often irritating to the mucous membrane of the anus, and causes an intense burning sensation. When this acrid solution is absorbed into the cellular tissue it causes an irritation of the skin, and we call that irritation pruritus ani.

The sphincter muscle, as long as it remains in a normal condition, prevents the passage of any appreciable amount of fluid through it. When, however, the action of the sphincter is made somewhat irregular by the pressure of a hemorrhoidal condition some of the fluid leaks through the anus and causes pruritus by direct contact. The skin about the anus is often found to be moist in persons having hemorrhoids.

Dr. W. Ernest Miles (*London Lancet*, 1908, Vol. 2, p. 1812) reviews the "*Perineal Excision for Carcinoma of the Rectum and of the Pelvic Colon*," and states that so far as he has been able to gather from the literature on the subject, the technic of previous operations seems to have failed in one important respect, namely, the complete eradication of the zone of upward spread of cancer from the rectum, whereby the chance of recurrence of the disease above the field of operation can be distinguished, if not entirely obviated. In his personal experience of fifty-seven such peritoneal operations, he found that recurrences took place in periods from six months to three years in fifty-four instances.

In order to ascertain the cause of his failures he made a post-mortem examination of such of his patients who died and found that recurrence appeared in situations that were beyond the scope of removal from the peritoneum, namely: (a) the pelvic

peritoneum; (*b*) the pelvic mesocolon; and (*c*) the lymph nodes situated over the bifurcation of the left common iliac artery. He considers that this area constitutes the zone of the upward spread of cancer of the rectum the removal of which is just as imperative as is the thorough clearance of the axilla in cases of cancer of the breast, if freedom from recurrence is to be obtained.

The appreciation of this important fact, induced him two years ago to abandon the perineal methods of excision of the rectum and to substitute therefor an abdominal method, comparable to those methods of performing abdominal hysterectomy known as the Wertheim and the Kronig-Wertheim. He then gives the technic of his operation in full, and has formulated what he considers certain essentials, which must be strictly adhered to, if satisfactory results are to be obtained, namely: (1) that an abdominal anus is a necessity; (2) that the whole of the pelvic colon, with the exception of the part from which the colostomy is made, must be removed because its blood supply is contained in the zone of the upward spread; (3) that the whole of the pelvic mesocolon below the point where it crosses the common iliac artery, together with a strip of peritoneum, at least an inch wide on either side of it, must be cleared away; (4) that the group of lymph nodes situated over the bifurcation of the common iliac artery are in all instances to be removed; and, lastly (5) that the peritoneal portion of the operation should be carried out as widely as possible, so that the lateral and downward zones of spread may be effectively extirpated.

### Conservatism in Surgery of the Mandible.

Thomas L. Gilmer, Chicago (*Journal A. M. A.*, August 7), reminds surgeons that exsection and resection of the mandible are followed by greater mutilation and disfigurement than follow any other oral or facial surgery. When the continuity of the lower jaw is broken by the removal of considerable sections of the bone, facial deformity is at once and permanently made, and no means of restoration by prosthesis, or otherwise, has as yet been suggested or employed, which meets the demands either cosmetically or functionally in any degree satisfactorily, either to the surgeon or to the patient. This statement may be qualified in a slight degree by excluding a few cases in which only a small section of the mandible has been removed in the anterior part of the bone, and there are present in the two fragments of the jaw a number of good sound teeth firmly set, to which a bridge may be secured; and even such cases, owing to the heavy strain to which such teeth will be subjected, it is unreasonable to expect

them to withstand permanently the necessary strain of mastication without finally becoming loosened and lost. When the surgeon realizes the truth of the foregoing statements, he should be slow in deciding on an operation so radical as exsection or resection. He should be sure that the life of the patient can be saved only by such an operation; and Gilmer is of the opinion that it is good practice, even in some malignant types of disease, unless the bone throughout its entire thickness is involved, to do an operation which will save at least a small part of the body of the jaw in its continuity, taking some risk of recurrence rather than maiming the patient for life. Take, for instance, the most prevalent type of malignant tumor of the mandible, the giant-cell sarcoma. Since in this type of sarcoma metastases are not early formed, a conservative operation may first be done, then the case subjected to ray energy and watched closely. If the growth recurs, it is not yet too late for the more radical operation. The author is no advocate of temporizing with malignant neoplasms; but he believes we should be sure of the diagnosis and then radically remove all of the invaded tissue so far as we can judge, saving, if possible, a small part of the jaw in its continuity. For cosmetic reasons operations on the jaws, when they may be thoroughly and completely done from within the mouth, should be done that way, but if the disease is of a malignant nature a clear field with unobstructed light is necessary to enable one to judge of the extent to carry the operation, then an external incision should be made. Such incisions may usually be made in a manner to cause the minimum of disfigurement.

**"Treatment of Pruritus Ani, with a Consideration of Its Pathology and Etiology."**

Dr. William M. Beach, A.M., M.D., of Pittsburg, Pa., in an article arrived at the following conclusions:

1. That pruritus ani occurs in mild and severe forms; mostly in middle life; the mild type with simple pruritus, the severe type with marked eczema and skin changes.

2. Certain aberrations in general metabolism, or in adjacent structures, are simply incidental and should be considered as complications.

3. Intra-rectal growths, as hemorrhoids, adenomas, etc., or the presence of parasites are contributory.

4. The distinct pathogenesis of pruritus ani consists of single or multiple burrowings from the anal pockets, emitting a serous or sero-purulent substance, which sinus may be complete or blind



and is always accompanied by proctitis, and frequently by cryptitis, and small ulcers at the ano-rectal line.

5. These sinuses when complete are the sequelae to an abscess history, but the origin of the blind recesses is in doubt, and yet it is not unlikely due to an infection by the colon bacillus.

6. The treatment is surgical for the purpose of obliterating the sinuses, correcting a rigid sphincter when necessary, and curing the proctitis and ulceration.

7. Gastro-intestinal and general metabolic disturbances must be met by rational measures.

## LARYNGOLOGY AND RHINOLOGY.

IN CHARGE OF J. PRICE-BROWN.

**The Treatment of Acute Coryza.** LOWY (*Münch. Med. Woch.*, July, 1908).

A combination of four parts of menthol to two of camphor makes an oily fluid. A few drops are warmed in a test tube containing a little water. The patient inhales the vapor two or three times a day from five to ten minutes at a time. The remedies are believed to be sublimed on the surface of the respiratory tract.

**Passage of a Piece of Tissue Through the Eustachian Tube After an Operation for Adenoids.** E. KRONENBERG, (*Zeitsch. f. Laryngol.*, Vol. Part IV.)

The case is unique, no similar one having been recorded. A child, aged 6, had bilateral otitis media, following scarlet fever. Much of the tympanic membrane in each ear was destroyed. Six months later both ears were dry, but large perforations persisted. The pharyngeal tonsil was then removed by Beckmann's curette. There was no vomiting. Five days later, a mass of tissue the size of a pea was removed from the left tympanic cavity. There had been no aural pain, but microscopical examinations showed that it consisted of adenoid tissue. The marvel was that so large a mass should pass through the Eustachian tube without producing symptoms.

**A New Method of Treatment of Acute Tonsilitis.** HAHN,  
(*Bollet. delle Malattie dell'orecchio, naso e Gola*, No. 11,  
1908).

The treatment combines the mechanical washing of the crypts with the reduction of the inflamed condition of the tonsil. He first injects a 3 per cent. solution of boracic acid, in lukewarm oxygenated water, into the crypts of the tonsil, and follows this by a solution of cocaine and adrenalin, and finally insufflates with orthoform. The author claims recovery in twenty-three cases after only one treatment in each.

**Untoward Results from Diphtheritic Anti-Toxin, with Special Reference to Its Relation to Asthma.** H. F. GILLETTE  
(*The Journal of Laryngology*, June, 1909).

The author concludes that all sera are still in an experimental stage, and that no one should be used without a well-defined object in view, and watchfulness for contra-indications. Twenty-eight cases are recorded, in which untoward results followed directly from its use, fifteen of which died. Symptoms came on usually within ten minutes of injection, and death, when it occurs, within one hour, due to respiratory failure. The writer disclaims any alarmist intention.

**Chronic Stenosis of the Larynx.** BY D. BRYSON DELAVAN.  
(*Laryngoscopy*, June, 1909).

The patient, an unmarried woman, aged 35, of excellent family history and good general health, had been a sufferer for years from chronic laryngitis. She was first seen in consultation in 1902, when, in conjunction with severe chronic inflammation, there were marked erosions along the free borders of both vocal cords. Together with other treatment, prolonged intubation was then advised, but not followed.

Two years later, urgent dyspnoea supervened, and tracheotomy was done by the attending physician, the cannula being worn until 1905, when, by the desire of the patient, the plan of treatment previously advised was adopted. For another year a tube was worn in the larynx almost continuously, but every time it was removed stenosis would return, compelling immediate re-insertion.

Finally, as a last resort, an intralaryngeal incision in the anterior obstruction throughout the full depth of its entire length, was made by means of Gleitsmann's cutting dilator, and a large size O'Dwyer tube inserted. This was worn from the date of operation, in June, 1906, to January, 1907, when it was

removed. In a little while dyspnoea again returned, and re-insertion became necessary. This time it was worn continuously until September, 1907, when the parts being entirely healed, it was finally discarded. Since then she has had no difficulty whatever in respiration, and although still voiceless, her general health has materially improved. The result may be considered a brilliant one, when the alternative of a life-long wearing of a cannula is considered.

**Bronchoscopy and Esophagoscopy: The Technique Utility and Dangers.** E. FLETCHER INGALS (*Laryngoscope*, July, 1909).

In a long and somewhat exhaustive article upon this important subject, the writer makes the statement that, "Much has yet to be done in the development of this most valuable operation, *especially in learning to avoid its dangers.*"

Basing his remarks on personal experience, he believes that unfavorable symptoms after bronchoscopy are largely due to the mechanical irritation produced by the instrument. In support of this view, he cites the following facts: The bronchi and the trachea, in young children, expand and contract greatly with each respiration. The bronchi are also lifted upward and depressed downward with each complete respiratory movement. From these movements there is a constant respiratory stretching and pulling of the air tube over the end of the bronchoscope, when in position, producing much mechanical irritation of the bronchial mucous membrane.

To avoid this and other dangers, he advocates making the operation as short as possible, touching no more of the tracheo-bronchial tract than is absolutely necessary, and using as small a bronchoscope as will give sufficient illumination and allow the use of suitable instruments.

The difficulties of esophagoscopy are slight, as compared with bronchoscopy. Yet, while in the former the largest available instrument should be used, and in the latter the smallest, it must be remembered that the edematous mucous membrane may roll over and completely hide the foreign body, even though the esophagoscope be passed without obstruction into the stomach.

What makes esophagoscopy less dangerous than bronchoscopy is the fact that its mucous membrane is designed for the passage of foreign bodies, and therefore can bear the irritation of the instrument much better than can the mucous membrane of the bronchial tubes.



**Some Experiences in the Direct Examination of the Larynx, Trachea and Esophagus.** A. BROWN KELLY (*Journal of Laryngology*, June, 1909).

Direct Laryngoscopy he had found particularly useful in the examination of infants. It enabled him to differentiate the various causes of stridor in babies, something which was rarely possible by means of the laryngeal mirror. In cases of congenital stridor, he found the epiglottis abnormally long, with lateral margins rolled backward in cylinder form.

For operative purposes, direct laryngoscopy in infants was also endorsed. Papillomata were removed, and by a light touch of the cautery, vocal nodules were destroyed. As the movements of the vocal cords cease during chloroform anesthesia, delicate operations can be readily done by the direct method.

**Tracheoscopy.**

Several cases in children are recorded, in which tracheotomy had been followed, on removal of the tube, by stridor. Direct examinations revealed more or less ringed stricture to be the cause. These cases were relieved by notching and dilating. In another case a bean had slipped into the larynx of a boy aged three. Direct examination 30 hours later found it at the bifurcation of the bronchi. It was removed piecemeal by means of forceps. The boy recovered.

**Esophagoscopy.**

In malignant disease this has only been of corroborative diagnostic value. In removal of foreign bodies, however, the esophagoscope has been of great service. Also, in the discovery and treatment of cicatricial stricture. In dilating these cases, the danger of getting into a pocket or perforating a weakened wall has been avoided. One case of exploring a diverticulum is also recorded, the opening being distinctly seen through the lumen of the tube.

**Observations on Esophageal Cases.** HARRIS PEYTON MOSHER (*Laryngoscopy*, June, 1909).

In this paper, which is somewhat elaborate, the writer deals largely with the use of the esophagoscope in the examination and treatment of malignant diseases of the esophagus, and in the removal of foreign bodies from this organ. His cases were chiefly of these two classes. The former all occurred in adults, and all were tragedies. The latter all occurred in children, and all recovered. All had swallowed coins or buttons.

In examining a patient, he places the operating table and the etherizer upon a platform, while the operator stands on the floor with his eye on a level with the inserted tube. In short, fat-necked people, the insertion of the tube is difficult, while in long-necked, thin people, it is much easier. The absence of teeth is also an advantage in inserting the tube.

The tube should always be as large as the esophagus can be made to take, particularly in examining for foreign bodies, as a small tube will frequently slip past a coin or a button without touching it.

### **Malignant Disease.**

The one advantage that the use of the esophagoscope has, in the treatment of malignant disease, is the fact that it permits of an earlier correct diagnosis being made than by any other method. This, however, is largely a matter for investigation, as cure of the disease through the tube is out of the question—the important point being that, by its use, operative treatment could be decided upon earlier.

### **Foreign Bodies in the Esophagus.**

Investigation of a large number of cases brought out several important facts: 1st. In very young children, the esophagus is much wider than is usually supposed. The writer gives an instance in which a child one year old swallowed a pearl button one inch in diameter. Examination by the esophagoscope failed to find the button, but it pushed it into the stomach. No symptoms were produced, and the button was discharged through the alimentary canal three days later.

Another instance is given in which a similar button was swallowed by a child eight years old, and discharged in the same manner; and a year later the same child swallowed and passed a silver fifty-cent piece without symptoms.

2nd. That, owing to the size and distensibility of the esophagus, the tube may be passed all the way into the stomach without either touching or discovering the foreign body. Several instances of this nature are related.

3rd. A means of locating the foreign body by the use of the esophagoscope is given, even in cases when it cannot be seen. In passing the instrument, wherever the esophagus is empty it collapses ahead of the tube in a small, dark central rosette. When, however, the tube approaches the coin, the rosette, which represents the lumen of the esophagus, disappears, and its place

is taken by a dark oval slit, produced by the pressure of the coin upon the esophageal wall.

The use of the X-ray also aids materially in locating the foreign body.

The places where foreign bodies usually lodge are: 1st. Back of the cricoid cartilage, and 2nd, Just above or below the clavicles. Once past these regions, they usually find their way quickly into the stomach.

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## PEDIATRICS.

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IN CHARGE OF ALLEN BAINES AND W. J. GREIG.

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### Circumcision and Its Abuses.

It is not sufficiently realised that, however advisable circumcision is on hygienic grounds, the anatomical state of the foreskin is by no means frequently sufficient justification for operating. There is much too great a tendency to regard a long and narrow foreskin as in itself a proof that circumcision is needed. Such a foreskin is the characteristic of male babies at birth; while, on the other hand, the penis of the new-born infant is small in size, and frequently very small.

In the new-born babe the glans and prepuce are adherent by reason of the persistence of the epithelial agglutination of the surfaces. Few babies are born with the adhesions fully separated, but separation takes place in the course of some months, and the perfect adult condition is attained about the eighth year.

True congenital phimosis is a rare condition. Sometimes the orifice is constricted, and occasionally it is absent. Constriction of the orifice may lead to ballooning of the foreskin on micturition, a very evident sign, which quickly attracts the attention of the nurse, for the state of the foreskin in babies seems to be peculiarly interesting to nurses, and the question of circumcision generally arises through their initiative. It is stated that a constricted orifice may lead to dilatation of the urethra, bladder, ureters, and kidneys, giving rise to hydro-nephrosis and atrophy of the renal tissue. Certainly such results are extremely rare from this cause, but excite undue apprehension in the mind of the family doctor. It is also said to cause the retention, accumulation and decomposition of



smegma, eczema and balanitis, preputial calculi, adhesion of the prepuce, narrowing of the meatus, urethritis, cystitis, pyelitis, retention, incontinence, and enuresis.

To the local irritation which accompanies some of these affections are ascribed restlessness, insomnia, irritability, paroxysmal screaming attacks, pavor nocturnus, dysuria, frequent micturition, severe colic, and even pain in the hip. Painful micturition is much more probably due to highly acid urine. Masturbation has followed on local irritation; but, on the other hand, the habit is by no means rare in the circumcised, and has often been ascribed to the effect of circumcision and the friction of clothes on the sensitive glans. Continued mild inflammatory mischief leads to adhesions and the development of a thickened non-retractile foreskin, with subsequent difficulties in coitus and liability to attacks of balanitis. Straining to pass water is supposed to develop or maintain hernia, prolapsus recti, and even hydrocele.

In the course of a very extensive experience of the ailments of infancy, the writer has found remarkably little confirmatory evidence of the occurrence of these conditions. Many of them are almost unknown.

Let it be clearly understood that mere redundancy of foreskin is no indication for circumcision. The penis develops later, and subsequently the supposed long foreskin may be insufficient to cover the glans completely. If the prepuce can be retracted with moderate ease, it should certainly be left. It is a very valuable protection for the glans. The fact that among the children of the careless and unwashed, smegma may accumulate under the prepuce and become offensive, is not an argument in favor of operation, but a slur on the person responsible for the welfare of the child.

Circumcision must not be regarded as a trivial and harmless operation, for many evil and fatal results have ensued. Sepsis, sloughing of the skin, and ultimately extensive scarring, sloughing and gangrene of the penis, fatal hemorrhage, erysipelas, and pyemia have all occurred. Syphilis and tuberculosis have been transmitted when the operation has been done as a religious rite, and not by a trained surgeon. Hemorrhage is rare, for the Jews remove skin only, do not cut the mucous membrane, and carefully avoid the frenum, though neither sutures nor ligatures are used. Hemorrhage is commonly due to neglect to tie the vessels of the frenum.

Apart, however, from serious and fatal sequels, the operation of circumcision may be a source of discredit to the operator and

of subsequent trouble to the child. It is by no means rare to find an excessive amount of skin removed. A chronically thickened preputial stump or a mass of redundant skin may give the organ an unkempt and ragged appearance, which spoils the reputation of the surgeon for years, and is a constant source of gossip among the female branches of the family, although the inartistic appearance eventually is lost or forgotten.

In many babies it is quite sufficient to separate the adhesions with a probe, without causing bleeding. Others can be treated by dilatation with dressing or artery forceps, until the foreskin can be easily retracted. It is then cleaned, oiled, and replaced. Retraction and oiling should be done daily for a time. This may be left to the mother or nurse, if the foreskin can be replaced easily. Otherwise, there is the prospect of being hastily summoned to deal with a paraphimosis. If the surfaces bleed on separation, adhesion is almost certain to recur, for the retraction cannot be carried out daily without pain, and will be neglected. Failing cure by these simple measures, recourse must be had to complete circumcision; to incision of the mucous membrane only on each side; to longitudinal dorsal incision of the foreskin; or to other modification of the complete operation, depending on the length of the foreskin, the degree of adhesion and stenosis, and the ideas of the parents and operator in reference to the desirability of this operation. Care should be taken not to remove too much skin, leaving enough to cover the corona, and to enlarge a narrow meatus, if present; for this may quite well be the cause of screaming and straining on micturition.—*The Hospital*.

## Editorials.

### THE PLEA OF INSANITY.

One of the saddest features in connection with the attempt to prove that a weak-minded young degenerate, who has for some time been confined in a criminal insane asylum, from a professional point of view, is the humiliating position in which certain alienists have been placed.

Most of our decent folk long since became tired of the oceans of news respecting the details of Harry Thaw's various degenerate idiosyncrasies and crimes. Justice Mills, who delivered an able judgment, concludes as follows: "The enlargement of Harry K. Thaw would now be dangerous to the public peace and safety, and therefore cannot be permitted." The press and the public generally appear to consider the judgment correct.

From a professional point of view, it is of interest to consider the position of some of the expert witnesses. It is generally supposed that the opinions expressed by expert physicians will always be considered of some value by the Court. In this Thaw trial, the Judge evidently considered that the evidence of the alienists who swore as to the creature's sanity was worthless—to use a mild expression. There is nothing sadder, from a professional standpoint, than the pitiful attempts of an honest physician to color his evidence in favor of one side.

What does the public think of such witnesses? We fear that the following quotation from a well-known, respectable newspaper, *Saturday Night*, of Toronto, represents fairly well the views of the whole community: "And in connection with Thaw's attempt to escape from the confinement one of the most disgusting exhibitions of the trial has been the testimony of the so-called medical experts. Men who were heralded as great alienists got into the witness-box and with unabashed effrontery declared the sanity of the man whom they had previously stated to be hopelessly insane and irresponsible from birth. It is such shameless exhibitions as these that give grounds for



the attacks on the medical profession so often heard. These self-constituted experts are a menace to the cause of justice and the profession they claim to follow. Every one, who has ever followed up closely the operations of the courts, knows the great value and perfect reliability of the general medical practitioner as a witness. No better and more careful testimony could be desired than what is usually given by the local doctors in any case with which they are connected. But also nothing could be more worthless and dangerous and unscrupulous than evidence of the kind given by the alienists in the Thaw trial."

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### THE BRITISH MEDICAL ASSOCIATION.

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The seventy-seventh annual meeting of the British Medical Association was held at Belfast, Ireland, July 27 to 30. It will be remembered that one of the most interested guests at the Montreal meeting, in 1897, was the Governor-General of Canada, Lord Aberdeen, now the Lord-Lieutenant of Ireland. Two of the most interested guests at the Belfast meeting were the Lord-Lieutenant and the Countess of Aberdeen. His Excellency, in replying to the toast of "The Lord-Lieutenant and Prosperity to Ireland," devoted his reply (*Brit. Med. Jour.*) to a sketch of the public health work done in Ireland during the last few years, especially that done by the Women's National Health Association, to check the ravages of tuberculosis. The statistics for 1908 indicated that the death-rate from tuberculosis was declining. His Excellency added that the Countess of Aberdeen was exceedingly gratified that her work in this direction should have been recognized by the British Medical Association, for he was permitted to say that the Council had that day resolved to recommend the Association to elect her an honorary member, a privilege he had himself enjoyed since the annual meeting in Montreal.

We understand the meeting was at least equal to the average of the last few years. The principal addresses, in addition to

Sir William's presidential address, were: Address in Medicine, by Dr. R. W. Philip, of Edinburgh; Address in Surgery, by Mr. Arthur Barker, of London; and Address in Obstetrics, by Sir John Byers, of Belfast. The hospitality extended to the guests by all classes in Belfast was of the most generous sort in all respects. The total number in attendance was about fifteen hundred.

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### THE CITY OF WINNIPEG.

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Nothing was more interesting to the visitors from the East than the young but great city of Winnipeg. We had heard much during recent years about the growth of this western town, but we had scarcely appreciated the fact that its population has trebled in the last eight years, and that it is now growing proportionately. This is, however, telling only a small part of the story. Its streets are beautifully paved and boulevarded. Its main business street is 133 feet wide. Its stores, warehouses, banks and public buildings are large and substantial. Its parks are capacious and artistically laid out. Many of the large residences are beautiful in construction and surrounded by spacious greens. In fact, it is a large, beautiful and clean city.

Among its educational institutions is the Manitoba Medical College, which is in affiliation with, and will probably soon become an integral portion of Manitoba University. This College has now about 400 graduates. There are five general hospitals, with an aggregate capacity of about 800 beds, and a large maternity, which can accommodate 200 patients. The veteran medical practitioner of Winnipeg at the present time is Hon. Dr. O'Donnell, who began practice at Fort Garry just forty years ago. The magnificent and generous hospitality of the physicians of Winnipeg at the meeting was highly appreciated by the visitors.

### THE CANADIAN MEDICAL ASSOCIATION.

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The following statements respecting the recent meeting of the Canadian Medical Association in Winnipeg cover considerable ground:

1. The meeting was the largest and best in the history of the Association.

2. The success of the meeting was largely due to the great personal popularity of the President, Dr. Blanchard, and to the untiring energy and executive ability of the Secretary of the Committee of Arrangements, Dr. Harvey Smith.

There appears to be no doubt as to the absolute correctness of the first statement in the minds of those who were in attendance. We do not vouch for the second statement, but simply state that the man who made it was "in the spot all the time" and apparently knew whereof he spoke.

The general opinion among the visiting members was that all the local physicians worked together with a will and that the success of the meeting was due to their united efforts. The preparation for the meeting was accomplished by a local committee of thirty-three men. The following sub-committees were appointed: Exhibit and Accommodation, Chairman and Secretary, Drs. Munroe and Coulter; Credentials, Drs. Campbell and Kenny; Advertising and Publicity, Drs. MacKay and Hughes; Transportation, Drs. Blanchard and Vrooman; Entertainment, Drs. Rogers and Field; Finance, Drs. Simpson and Pope.

In addition to the general sessions there were five sections, as follows: Medicine, Chairman and Secretary, Drs. Jones and Hunter; Surgery, Drs. Nichols and Maclean; Obstetrics and Gynecology, Drs. Gray and McCalman; Eye, Ear, Nose and Throat, Drs. Prowse and Turnbull; Pathology, Drs. Bell and Peirce. We may say in a general way that the proceedings were conducted with a Western *snap* which appeared to keep things *humming* all the time.



## Personal.

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Dr. W. A. Young, Managing Editor of the *Canadian Journal of Medicine and Surgery*, of Toronto, was elected President of the American Medical Editors' Association at the last meeting, held in June, at Atlantic City. This Association has a membership of over two hundred editors of the principal medical journals in the United States and Canada. Dr. Young was thus honored because of the deep and active interest he has taken in the Association in the past, although, as it happened, he was not present at the meeting when he was elected. He was crossing the Atlantic at the time, and returned to Toronto, after his European trip, August 26th.

## Selections.

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### Treatment of Aneurysm of Aorta.

Four considerations must be remembered in the medical treatment of Aneurysm of Aorta:

1. The situation, the volume and the physiological importance of the aorta make it impossible to apply the means which are used in aneurysm of other arteries.

2. There is always difficulty in rightly appreciating the value of a treatment, because (a) certain aneurysms of the aorta develop with great slowness; (b) after a period of rapid growth, they often remain stationary; (c) at the beginning of a stay in the hospital or of treatment which keeps the patient quiet, the changed manner of living often produces an improvement of the functional disturbances and at times of certain physical symptoms.

3. Aneurysms of the aorta may be cured spontaneously.

4. Some of the etiological conditions may become the point of departure of therapeutical indications.

An instructive example of spontaneous cure is that of a woman of 79 years, seen by Prof. Robin at the *Maison de Retraite des Ménages*. The patient said she had never had a day's illness. She succumbed to an attack of broncho-pneumonia, which she resisted for a period of 19 days. At the autopsy, beside the classical lesions of broncho-pneumonia, there were found two cured aneurysms of the abdominal aorta. The first was a fusiform aneurysm, situated just below the diaphragm, filled with white fibrinous clots, very hard, stratified, adherent to the aortic walls. The second, almost immediately below the first, on the anterior wall of the vessel, was also filled with white clots, stratified, old, those nearest to the orifice of the sac being softer and of a reddish hue. The aorta was, throughout, hard and marked by cavities and calcareous flakes.

So, it appeared manifest that two aneurysms could develop and be cured with no outward manifestations of the pathological and curative processes. In this cure, the arterial wall and the circulating blood each played a part. In the arterial wall, there was seen an infiltration of embryonal cells which produced a resisting tissue. At the same time the inequalities and the roughness of the lining membrane caused the formation of clots. The blood performed its part, by clotting, and forming successive layers of fibrin. Thus is explained the spontaneous cure.

Let us now examine the etiological conditions. To bring about an aneurysm, there must be first of all a soil, that is a lesion, which weakens the elastic resistance of the vessel. This lesion has, for causes, those which lead to arteritis and endarteritis, from alcoholism to syphilis. In 1554 Fernel affirmed that the venereal virus was a cause of aneurysm. To-day no one disputes the preponderating influence of syphilis as a cause of aneurysm. The arteritis, which it produces, seems to have the *vasa vasorum* as the point of departure. As the next step, it is often, if not always necessary to have an *infection* added, such as rheumatism or grippe, which causes micro-organisms to become imbedded in the lining membrane.

These two conditions being established (the second may be wanting or pass unobserved), that which brings about the aneurysm is the continuous action of the *arterial tension* on the arterial walls, whose resistance is lessened.

Hence it follows that the treatment must be directed to the vessel walls (taking into account the causes which have placed them in a state of lessened resistance), to the blood itself and to the arterial tension.

The author then refers to the various forms of treatment that have been adopted—surgical treatment, coagulating injections, direct compression, indirect compression, acupuncture, galvanopuncture, ligature of the carotid arteries, treatment intended to modify the aneurysmal walls, such as applications of ice, etc. Treatment intended to modify arterial tension has met with greater favor. In 1728 Valsolva and Albertini proposed to treat aneurysm by absolute rest and a very reduced diet, having as their objective the lessening of the pressure of the blood on the arterial walls.

Treatment directed to the coagulation of the blood is represented by that of Graves and Stokes, who tried to cause coagulation of the blood by means of nutrition as substantial as possible and a long list of coagulating drugs, acetate of lead, tannic acid, perchloride of iron, chloride of calcium, etc., all have been abandoned, in view of their inactivity or symptoms to which they give rise.

But the question has assumed a different aspect since Lancereaux and Paulesco (starting from the experiments made by Dastre and Floresco as to the coagulating properties of gelatin) have given us a treatment which seems to be far superior to all others.

Gelatin contains a small quantity of calcium and is feebly acid in reaction. Possibly these two elements play a small part



in the process of coagulation. It has been also proven that it increases the secretion of the coagulating materials of the white corpuseles. Lancereaux adopts the following solution:

Gelatin sterilized at 120° .....	gr. 4.55
Chloride of sodium .....	gr. 1.40
Sterilized water .....	gr. 200

The complete treatment requires from 30 to 40 injections. The only contra-indication to this treatment is the existence of albuminuria. Possessing in gelatin a valuable means of favoring the coagulation of the blood, one must seek measures for lessening the arterial tension and modifying the condition of the vessel-walls. To accomplish the former, the best measures are rest in the horizontal position, an absolute milk regimen and iodide of potassium. Rest in the horizontal position lowers the arterial pressure by 40 millimetres. The iodide of potassium is preferable to the sodium salt, as it has a better effect on the nutrition of the vessel-walls. One must also treat any etiological conditions which come into play. If the patient is undoubtedly syphilitic, one must use mercurial preparations.—Translated from *Giornale Internazionale delle Scienze Mediche* by Harley Smith.

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### The Lost Art of Prescribing.

It is a venerable grumble among physicians of the older school that the art of therapeutics is decaying because the younger generation is extremely ignorant of materia medica and remarkably inefficient in the matter of prescribing elegant mixtures. The result, it is averred, is that proprietary drugs are acquiring an increasing vogue, to the detriment both of the patient and the practitioner. A recent contributor to the *Medical Record* has made this thesis the text of an address upon the proper teaching of therapeutics in medical schools. "I have maintained for years," he says, "that the best way to do away with nostrums is to give our medical students thorough courses in materia medica, medical pharmacy, pharmacology, and therapeutics. The way to abolish proprietary medicines is to teach medical students how to prescribe, and acquaint them with the physiological and therapeutic action of drugs. They should be taught how to write or compound prescriptions that would be palatable and agreeable, compatible, yet so associated or combined as to meet the indications for which the prescription is intended in a scientific manner."

With due submission to the ripe experience of these praisers of the past, we take leave to question the deduction, while admitting the premiss. It is past question, we believe, that the younger generation of medical men is far behind its predecessors in the matter of prescription-writing: a thing in itself to be regretted. But the march of events which has evolved this state of affairs has not been without its compensations, to the patient at least. It may be granted, from the professional point of view, that the old-fashioned "grapeshot" prescription, as it has been irreverently called, was a triumph of art, and that to combine a dozen medicinal substances in one draught so skilfully that it should neither precipitate, nor explode, nor revolt the patient's stomach, was no mean achievement. But to say that the loss of this faculty has invited the inroads of proprietary medicines is an assumption not only unproved, but probably incorrect. To us at least such a proposition seems an argument of the *post, ergo propter* variety, for the following reasons. Fifty years ago the Pharmacopeia was largely composed of crude drugs, for pharmaceutical chemistry was relatively in its childhood, and standardization of drugs was not attempted. With the rough materials at his disposal, the physician of the time no doubt did wonders in the way of obscuring nauseous qualities and compounding imposing formulæ. Time slipped away, and presently there arose a generation of chemists who were not content with the old crude drugs, but set to work to standardize them and isolate their active principles. From this stage, it was but a step to the subversion of the old-fashioned draught and its replacement by preparations less bulky and more convenient, and at the same time more pleasant to take. For with all their boasted skill in compounding elegant mixtures, the "grapeshot" school seems to have left a tradition among the contemporary laity that draughts, even in those days, were not grateful to the palate. We have to consider, then, on the one hand, a time in which drugs were crude, unstandardized, very variable in strength, and administered in a form which, if as palatable as it was possible to make it, was nevertheless inconvenient and distasteful; on the other we have an epoch in which the active principles of those drugs can be obtained pure, standardized, vouched for in both these respects by chemical firms of high scientific reputation, and withal convenient and easy to administer. Can it be wondered at that the medical practitioner of the present day finds himself driven, even against his material interest, to give the proved and pleasant forms of drug which the patient knows well enough are on the market, rather than to spend his time in learning the *finesse*

of prescribing the antiquated remedies of the British Pharmacopeia?

The truth is that our Pharmacopeia is an anachronism. It contains, of course, plenty of old and well-tried friends, but they are almost swamped in rubbish. When a person has travelled by an express train, it is idle to assure him that a coach is the best way of getting about, and still more idle to complain, when he refuses to go back to coaching, that his tiresome choice is due to the fact that coachmen have forgotten how to drive. The British Pharmacopeia does not meet the needs of the present day, and in consequence it goes to the wall. No one is responsible for this except those whose business it is to keep the Pharmacopeia level with the march of civilization. This they have neglected to do, and the result is what we see.—*The Hospital*.

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#### Relation of Medicine to Other Professions.

McWhorter discusses the changes that have been brought about in the practice of Medicine by those of environment, the crowding of population in the cities, the discoveries of science, etc., and considers the relation of the physician with the lawyer, the press, the legislature, the engineer, the educator, and the social economist. He particularly contrasts the results of the old French Canal Company at Panama, with its disregard and ignorance of hygienic conditions, with those of the brilliant, hygienically conducted enterprise of Colonel Gorgas, and remarks that "the adverse forces of Nature may be scientifically controlled; they may not be ignored." To the general practitioner McWhorter says: "Do not misapprehend the dignity and importance of your efforts because of the humble station in life of your patients. The country doctor whose homely science restored Abraham Lincoln to health in boyhood days probably made a larger contribution to the needs of humanity than did the brilliant surgeons who operated on Napoleon III. or the Emperor Frederick. It might be well to remember this, gentlemen, as you sit at the bedside of some bare-ankled girl or some freckle-faced boy. Only a large perspective reveals the true relations of things."—*Alabama M. Jour.*



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## Original Communications.

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### A CLASSIFICATION OF THE COMMONER DISEASES OF THE DIGESTIVE SYSTEM OF INFANTS.

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BY DR. JOSEPH S. A. GRAHAM.  
Hospital for Sick Children, 1907-08.

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Many classifications of the commoner diseases of the digestive system in infants have been made. Some of these classifications may seem complete at first sight, leaving little to be desired, but on reading further the definition and discussion of the different classes, there come to our minds many cases which would puzzle us as to which class they should belong. We have felt the need of a simpler classification at the hospital, and one in which each type was well defined, so that each term might call to our mind a definite disorder.

From the commencement of the last hospital year the cases were classified by me as they were discharged, but by the end of the year my own ideas had so changed, what with the result of post-mortem findings and the great increase in the number of patients admitted, that it was necessary to make a complete tabulation of all cases of digestive disturbance and attempt to re-classify them. This paper may then be taken as an interim report and purely clinical in character.

The cases were divided into four groups: entero-colitis, gastrointestinal indigestion, malnutrition and marasmus. The following were briefly the limitations of each group:

In entero-colitis the onset was always acute, the patient being taken suddenly but a few days before admission to the hospital. As a rule there was marked increase in the temperature, except in those few who had been suffering from chronic digestive dis-

turbance and in whom the vitality was low. Acute diarrhœa was present at the onset, eight or more stools being noted a day, usually containing mucus in abundance, occasionally blood, were very offensive in odor, and vomiting was almost invariably present. Some of these cases had, before the onset of the attack which brought them to the hospital, had attacks of intestinal disturbance, but nothing which resembled the present, which was more acute and associated with marked prostration. The result of treatment in the hospital was unsatisfactory. Colon irrigation and stomach lavage were useful in so far as a reduction in the number of stools a day and cessation of vomiting were concerned, but careful regulation of diet was of little service. The temperature remained elevated in spite of purgation, and diarrhœa and vomiting, or regurgitation of food (as distinguished from vomiting) continued, but in a lessened degree. The length of stay in the hospital for these cases was short. Death claimed the vast majority. Those who recovered did so in from two to three weeks.

*Gastro-intestinal Indigestion.*—The onset was more gradual, the patient being admitted after days or weeks of patient endeavor on the part of the mother. The attack differed in no way from previous attacks some of the patients had had. The temperature in some cases was elevated, but was reduced within one or two days after admission to the wards. Purgation usually accomplished this. Diarrhœa of a chronic character was present, as was regurgitation of food. The stools were offensive, containing mucus and occasionally streaks of blood. Colon or stomach irrigation had little or no effect. Careful attention to diet only produced good results after days of careful feeding and nursing. The results were good in the majority of cases. This group includes those cases of disturbed metabolism who do not respond immediately to dietetic treatment, as do the malnutrition group, and in whom there is probably cellular change, both in the digestive glands and intestinal tract.

Malnutrition, due to improper foods, or to feedings too great or too small in amount, given too frequently. The patients suffered from occasional attacks of diarrhœa and elevation of temperature. After admission to hospital, and being placed on proper foods at proper intervals, they immediately improved and gained weight. This allowed of their discharge after a few days.

*Marasmus, Chronic Wasting from Birth.*—Either in premature children, or in full term children apparently healthy, who rapidly become as little old men and women, doomed to death,

and for whom nothing can be done. Careful feeding, regulation of health, produced no good result.

There are many objections to such a classification, and especially is this the case as regards entero-colitis and gastro-intestinal indigestion. The malnutrition and marasmus groups are fairly well defined. The malnutrition group differ from the gastro-intestinal group only in degree and in ability to respond to treatment. Were we to subdivide entero-colitis into acute and chronic, those cases which recover from the acute attack and become chronic do not differ greatly, if at all, from the gastro-intestinal type. I feel certain that a number of cases, coming to us as intestinal indigestion, were due primarily to an acute entero-colitis, and that as a result of the entero-colitis they were immediately taken from a diet which had been suitable and placed on a variety of foods. The longer the duration of the attack the greater the variety of foods, so that we have the results of an inflammatory reaction to deal with, as well as those of improper feeding.

Again, were we to subdivide gastro-intestinal indigestion into acute and chronic, we should have the acute type closely resembling entero-colitis, and especially would it be difficult to decide whether the patient were suffering from an exacerbation of an illness of the gastro-intestinal type which resulted in death before we had an opportunity of regarding the effect of careful feeding, irrigation, etc.

Enterocolitis implies an inflammatory condition due either to bacterial or chemical toxic agents, or both. That it is always the result of an infection may be doubted, but it is a well-known fact that in the baby wards of hospitals where babies are being treated for chronic digestive disturbance, as well as those suffering from surgical and other medical affections, we may have epidemics of entero-colitis which sweep through the ward, causing illness and death of many, irrespective of the diseases for which they were admitted. Again, the disease during an epidemic differs in no way clinically from the cases I am endeavoring to describe. Epidemics in the Hospital for Sick Children have been unknown for the past four or five years since precautions were taken similar to those in typhoid. On the other hand it will be shown that these cases are not by any means all due to milk infection, that babies on proprietary foods are liable to it as are babies fed entirely on the breast. Avenues of infection are possible from nipples, bottles, etc., which must be taken into account. The sudden onset, with elevation of temperature, indicate a reaction on the part of the organism,



due more likely to toxins of infective origin than to toxins of chemical origin.

Of the type described as entero-colitis there were admitted during the year 41 cases. Of these 32 died, 6 were cured, and 3 were discharged unimproved, the parents wishing to remove them to their homes. These 3 cases seemed hopeless at the time of their leaving the hospital.

*Age.*—8 were under 2 months; 8 between 2 and 4 months; 4 between 4 and 6 months; 8 from 6 to 8 months; 4 between 10 months and 1 year; 6 were over 1 year.

*Breast Feeding.*—No breast, 5; breast fed under 2 weeks, 7; between 2 weeks and 1 month, 7; between 1 and 2 months, 5; between 2 and 3 months, 3; between 3 and 4 months, 1; between 4 and 5 months, 2; over 1 year, 3; altogether, breast fed, 2.

It is noticeable that breast feeding was discontinued early in the majority of cases, and worthy of note that of the 6 who recovered 3 were breast fed over 1 year, and that one was altogether breast fed.

*Type of Feeding.*—13 were fed on milk mixtures (with and without the addition of barley water); 14 on proprietary foods; 3 unknown; and, as before stated, 2 on breast alone. The disease was accounted for by the mother after sudden change from breast to milk in 2 cases; from breast to proprietary food in 1 case; from proprietary food to milk, 2 cases, and from milk to proprietary food, 1 case. Thus there were 6 cases of the 41 in whom sudden change of food seemed to play some part.

*Previous Attacks.*—28 had never had any previous evidence of intestinal indigestion other than occasional disturbance for a day or two; 11 had suffered on and off from attacks of indigestion, but not similar to the present, and 3 had never thrived.

*Onset.*—The onset was invariably sudden. The number of days of illness before entering the hospital was: Under 2 days, 2; under 3 days, 6; under 4 days, 4; under 1 week, 15; under 2 weeks, 4; under 3 weeks, 5; and over 3 weeks, 1. None of these cases showed any improvement from the time of onset to the time of admission to the hospital. Vomiting and diarrhoea were present in 22; vomiting alone in 2; diarrhoea alone in 10; no vomiting or diarrhoea, 1; constipation, 2; not mentioned in history, 4. Of those who had symptoms of diarrhoea, 3 had an average of 5 stools daily; 9 had from 8 to 9; 1 had 10; 1 had 12; not known accurately, 26; 1 suffered from convulsions; in 4 blood was noted in the stools; 1 had evidence of congenital syphilis; 1 suffered from rickets; and in 15 there was a tubercular family history.

*Length of stay in hospital.*—25 remained from 1 or 2 days to 1 week. 9 from 1 to 2 weeks. 4 from 2 to 3 weeks. 3 from 3 to 4 weeks. 1 over 4 weeks.

*Month of admission.*—March 2, April 1, June 1, July 4, August 13, September 12, October 7. It will be seen that the months of selection, if one might so term it, are August, September and October. The October referred to is that of 1907, the October of 1908 being in the next year. The number of cases admitted in October 1908, is greatly in excess of October 1907, or of August or September 1908.

*Irrigation.*—While in the hospitals the stools were reduced to from 2 to 4 a day, excepting those cases which remained in the hospital but a day or two, this by colon and stomach irrigation. In all cases the odor of the movements improved, but there remained the mucus, and blood was noted in 13 cases during their stay. In 10 cases the vomiting continued in spite of the food constituents being greatly reduced, and all resented any attempt at increasing the food by an increase in the number of movements and by regurgitation of food. Good, immediate results of careful feeding were seen in 5 babies.

*Temperature range.*—It is extremely difficult to give any clear conception of the temperature in these cases. All exhibited temperature while in the hospital with the exception of 3. Of the 6 cases which recovered there was a well-marked and sustained temperature for 10 days or more in 4. These cases were kept in the hospital for an average of 3 weeks. The range of temperature was from 102 to 103, falling gradually to 99 or normal. The cases which were discharged unimproved, or which died, showed marked evening or morning remissions, the high temperature being from 101 to 102, receding to 99 or 100. Occasionally the temperature would rise to 104 or 106, but for not longer than from 24 to 36 hours. It would either drop or death would ensue. After the patients had remained for any length of time it was noted that the temperature fell and that the morning remissions were more marked.

*Complications.*—Four developed broncho-pneumonia; 6 acute bronchitis; 1 suffered from convulsions, and there was retraction of the head in 2 cases.

*Loss of weight.*—The weight of the majority of these patients on entering the hospital approached the normal. General nutrition being markedly good in 20, fair in 10, and poor in 11. There was an average loss of 5.5 oz. in the patients remaining in the hospital less than 1 week, of 14.8 oz. of those

remaining in hospital from 1 to 2 weeks, and of 12.8 oz. in those remaining from 2 to 3 weeks. The number of cases remaining longer was so small that the average loss or gain would be of no service.

*Gastro-intestinal indigestion.*—Of this type there were admitted 97 patients; 32 died, 2 unimproved, 5 improved, 56 cured.

*Age.*—Under 2 months, 8; between 2 and 4 months, 21; between 4 and 6 months, 14; between 6 and 8 months, 16; between 8 and 10 months, 11; between 10 months and 1 year, 11; over 1 year, 15.

*Breast Feeding.*—Doubtful, 15; breast, 19; up to 2 weeks, 8; from 2 weeks to 1 month, 12; from 1 to 2 months, 17; from 2 to 3 months, 10; from 3 to 5 months, 10; over 5 months, 10; and altogether breast fed, 5.

*Type of feeding.*—Altogether breast fed, 5; milk dilutions, 18; proprietary foods, 34; proprietary foods and milk, 34; milk with variety of foods, such as potatoes, meat, fruit, etc., 18; doubtful, 6. The commencement dated from a sudden change from proprietary food to milk, 3. Breast to proprietary food, 4. Breast to milk, 1. Milk to proprietary food, 2. 10 cases showed no relation to sudden change of food.

*Previous evidence of intestinal trouble.*—58 had previous evidence of gastro-intestinal disturbance; 29 had not shown any such trouble up to the time of onset mentioned, which was always long; 9 were doubtful.

*Onset.*—The onset was gradual as a rule. The number of days before entering the hospital were: Under 1 week, 18; from 1 to 2 weeks, 14; from 2 weeks to 1 month, 16; from 1 to 2 months, 24; from 2 to 3 months, 14; over 3 months, 6; not known, 9. In most cases the patients did not pursue a steadily downward course but would for a time improve, then have a setback. Diarrhœa and what the mother described as vomiting, 44 cases. Diarrhœa alone, 8 cases. Vomiting alone, 10. Constipation in 8. Constipation and vomiting, 4. Convulsions, 1. Blood in movements of 1. Onset not accurately known, 17.

*Length of stay.*—Under 1 week, 25. From 1 to 2 weeks, 18. From 2 weeks to 1 month, 18. From 1 to 2 months, 20. Over 2 months, 16.

*Month.*—Jan., 2; Feb., 8; March, 6; April, 4; May, 10; June, 6; July, 6; Aug., 25; Sept., 9; Oct., 13; Nov., 6; Dec., 4. Note the increase in August.

*Effect of careful feeding.*—The effect of careful feeding was



such as might be expected from the chronic type of case. After great reduction of proteids and fats the diarrhœa and vomiting ceased in the majority of patients after 4 days. Marked improvement was noted in some, when, for some unknown reason the child suddenly became worse and died. In other fatal cases the diet could not be increased from a starvation one, of which the child could only assimilate a fraction, without symptoms of intestinal irritability. On the whole the effect of careful feeding was good.

*Temperature.*—The rule was for the temperature to vary from 97.5 to 99.5 or 100 with morning remissions (this after the initial temperature on admission had disappeared). At times the temperature would become elevated to 101 or 102, but this was only for one or two days, and free purgation would cause its fall. Before death the temperature was almost invariably elevated for one or two days.

*Weight.*—In the cases which were discharged there was a preliminary loss of weight in a little less than one-half. At the time of discharge there was a loss of weight in one-third. Of those who died there was a preliminary loss of weight in two-thirds. A loss in weight in all but five at the time of death.

Before attempting to tabulate these cases I was under the impression that there would be no difficulty in showing that we had to do with two distinct diseases. I can only offer them as two types of disease, and find it impossible to draw the line sharply between infection from pathogenic bacteria and toxæmia from putrefaction due to non-production on the part of the patients of such substances as HCl or such ferments as lactic acid. No doubt most of the entero-colitis cases are due to infection by pathogenic bacteria. In some it is possibly a septicæmia with local bowel manifestations as in typhoid. Although we thought of making blood cultures the condition of the majority of the patients was not such as would warrant it, and it was not done. Some of the cases of gastro-intestinal indigestion on coming to post-mortem, showed bowel changes similar to the entero-colitis type, infiltration of the wall, swelling of the lymphoid elements and ulceration. It is possible that in these cases there was an infection superadded to which the patient was unable to react. The majority of these cases showed a condition of atrophy of the bowel wall with slight swelling of the lymphoid elements. Were the patient to die early in a gastro-intestinal indigestion, we should probably have such a bowel condition present, due to toxic products.

Enterocolitis is an acute affection occurring usually during the months of August, September and October. The patients are fairly well-nourished, artificially-fed babies in whom, as often as not, there has never been any digestive disturbance. The onset is sudden; prostration great; wasting is not a prominent feature, the majority losing but little weight before death. Gastro-intestinal indigestion is a more chronic affection, gradual in development, nutrition of cases poor, in short, a wasting disease. They were admitted in every month of the year, the greatest number in August. Some of these cases must undoubtedly be due to a superadded pathogenic infection.

There were 11 cases of malnutrition, all of whom recovered, and 13 cases of marasmus, 9 of whom died, and 4 discharged unimproved.

The distinguishing of these types is of more than academic interest. Why should a baby who has thrived fairly well on some artificial food be taken from that food and be made the subject of dietetic experimentation from the time he develops an acute enterocolitis? It is granted that a reduction of any food is necessary, but surely the attention should be devoted to the inflammatory nature of the illness, remembering that the cause of the complaint is not always in the food, even though it may be proprietary. Many of this type come to the hospital after being fed on a different food every day or so from the onset. The mortality is high, but the cases are not selected, or are rather a selection of the worst, many being moribund at the time of admission.

## PRO-PERITONEAL AND OTHER INTERNAL HERNIAE.\*

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It is not my intention in this short paper to go into the whole subject of Internal Hernia in all its forms, but merely to report three cases that have come under my observation presenting symptoms of intestinal obstruction.

The first was that of a male, age 40, who was admitted to the General Hospital on December 2nd, 1905, under the care of the late Dr. George A. Peters, with the following history: In the fall of 1904, at Huntsville, the patient had his first attack. It commenced with pain, chiefly in right iliac region, persisted for three days and was very severe. He would neither eat nor drink, had no bowel movement but no vomiting. Enemata relieved the condition.

The second attack was at Waubaushene in April, 1905, quite similar to the previous attack, lasting three days, with pain, loss of appetite, but no vomiting. Again he was relieved by enemata. The condition was thought possibly to have been appendicitis. In each attack, when relief came, it came suddenly.

The third attack, almost a month before admission, lasted four days, with similar symptoms but with vomiting in addition, although this was not faecal in character. He was treated by Dr. J. A. Harvie, of Coldwater, with enemata, and recovered.

The fourth and present attack occurred while patient was working at railway construction on the C.P.R., and commenced similarly to the others, but was not relieved by similar treatment. It began on November 28th with pain in the abdomen in the right iliac region and constipation. He consulted Dr. J. A. Harvie, who gave him a purge and ordered hot applications to the abdomen. This was not effectual and next day he began to vomit. The vomited material was white and slimy, but pain was not a marked feature. On November 30th the doctor gave him an enema, which was ineffectual, and on December 1st he started to hiccough and this continued until he entered the hospital on December 2nd. The patient

\* Read at Surgical Section of the Academy of Medicine, Toronto.



had vomited every day since November 29th, and upon admission the vomited material was brown, faecal in appearance and odor. Enemas were given which brought away some faecal matter, probably from the lower bowel.

Upon examination the patient was seen to be a rugged, well-nourished laborer. There was some distention of the abdomen and the presence of a marked peristaltic wave. There was some slight rigidity of the lower part of the right rectus. There was a tympanitic note over the entire abdomen, except in the region of the bladder, where there was an alteration in the note. The heart sounds were transmitted over the abdomen but were more marked in the upper half.

The facial appearance indicated some serious intra-abdominal condition, though the pulse was 70 and the temperature normal. Hiccoughing at times was distressing, but the pain was less severe.

On December 3rd the pain returned, became worse; the vomit was very brown in color, and though the temperature remained normal the pulse became accelerated. Immediate operation was decided upon.

The abdomen was opened in the middle line between the umbilicus and the os pubis. The small bowel in its upper two-thirds was distended, while near the ileo-cæcal end it was collapsed. Between these the bowel disappeared into an opening at about the level of the internal ring and between it and the median line. About eighteen inches of ribbon-like anæmic gut were drawn out of an intraperitoneal sac, and at once became better in appearance. That part of the bowel that impinged on the rounded edge of the sac looked damaged in its serous coat, but there was no solution of continuity. Upon dissecting out the sac it was found to consist of peritoneum and was tucked between the parietal peritoneum and the fascia transversalis. The margin of the opening was rounded and thick. When dissected out the sac was about three inches long, and the opening in the parietal peritoneum thus left was closed with cat gut sutures. The entrance into the sac would appear to have been originally a peritoneal pouch internal to the internal abdominal ring, and the hernia, instead of finding its way into the inguinal canal, pushed the peritoneal pouch out between the parietal peritoneum and the transversalis fascia.

After operation the vomiting ceased and the patient had two bowel movements the following morning. He continued to improve for five days, when on the evening of December 8th

he began to complain of pain in the lower abdomen. Upon examination the abdomen was tense, tympanitic, with absence of liver dulness, and increase of pulse rate from 84 up to 120, together with the abdominal facies. Perforation of the damaged gut was diagnosed and I opened the abdomen through the former incision, wiped out a quantity of fæcal matter, and discovered a perforation the size of a split marrowfat pea in the small bowel where it had been damaged by pressure on the margin of the hernial opening. The opening was closed with two layers of continuous catgut sutures. The fæcal matter was washed out with some saline solution and four drainage tubes were inserted in different directions and the wound partly closed.

He was returned to bed in a greatly shocked condition and normal saline per rectum ordered. The pulse continued to fail and at midnight an interstitial saline was administered and these were continued every eight hours for the next thirty-two hours. On the 12th he was somewhat better and was put up in what is now called the Fowler position for better drainage. Bronchitis developed, and for the next few days he coughed up great quantities of muco-pus. On the 15th the large drainage tubes were removed and smaller ones inserted. It is unnecessary to relate the further progress of the case more than to mention that he was discharged from the hospital on February 23rd, and started for his home in Quebec.

The drawing made for me by Dr. W. E. Gallie represents the appearance of the sac looking at it from behind.

The second case was that of a boy aged 7, who, upon returning home from a party on the evening of January 4th, 1906, complained of abdominal pain, which was relieved by hot applications. The next evening he was seen by Dr. Harvie of Orillia, and though there was some indefinite abdominal pain there was no muscle rigidity, no increase in pulse or temperature and the bowels moved with an enema. The day following there was no increase of pain—more an uncomfortable sensation—but in the evening there was a sudden acceleration of pulse, from 88 to 140 in a few hours. The face took on the appearance so common in peritonitis and the abdomen became distended. When the patient was under the anæsthetic—after midnight of that day, really the early morning of January 7th—I was able to make out a large, sausage-shaped mass extending upward from the right iliac region toward the middle line, and I am free to confess that I thought we had a case of intussusception to deal with. Upon opening

the abdomen a large coil of distended, gangrenous, foul-smelling gut appeared in the wound. This had passed through a loop formed by an attachment from the summit of a Meckels' diverticulum to the margin of the mesentery. About fourteen inches of bowel had passed through and then had drawn the diverticulum with it, producing strangulation of the circulation where the diverticulum and bowel was twisted upon itself. The loop was drawn out of the abdomen until the two healthy ends appeared. These were quickly sutured together and then to the abdominal parietes; the bowel opened and irrigated, and the rest of the opening closed. The child survived only for about twelve hours.

The third case was in a girl of six years whom I saw with Dr. W. L. T. Addison on March 29th of this year. The history was, that on the evening of March 26th the child complained of not feeling well and the mother gave it a dose of castor oil. Soon after there was vomiting. Towards morning there was a slimy evacuation from the bowels and in it a large round worm. On Saturday the girl was better but towards evening began to be uncomfortable and to complain of pain. A laxative was given without result, and early in the morning of the 28th vomiting commenced. In the afternoon when the doctor saw the case there was severe vomiting, normal temperature, a pulse-rate of about 80, but there was pain and no rigidity. Stomach sedatives were administered and calomel, but when I saw the case on the following afternoon there had been no bowel movement, though mucus had passed fairly often, and the vomiting continued.

Upon examination there was no rigidity, very little tenderness in the abdomen, but a peristaltic wave could be made out. To the right of the middle line and about the level of the umbilicus there was a soft mass with an indefinite outline. It did not feel like bowel within bowel—as in an intussusception—but, as I remarked at the time, it felt like a localized bunch of gut filled with gas. The patient was in a state of marked shock with the eyes sunken and dark circles around them, the pulse rate was 156, and there was only a slight elevation of temperature. Examination per rectum revealed nothing.

Two hours later I opened the abdomen through the right rectus; some distended bowel presented at the opening, and, while it was darker in color than the other portions, there was no evidence of strangulation. Upon delivering this handful of bowel I found it had herniated through a loop on the lower margin of the omentum, and consisted of about two feet of



small bowel and a few inches of the cæcum and ascending colon. The loop was disposed of, the abdomen closed quickly and the patient returned to bed. Stimulants were administered, artificial heat applied, and the child made an uninterrupted recovery.

This case will come under the head of incarcerated hernia without strangulation. The first one related showed incarceration with beginning strangulation, while the second one was a complete strangulation.

The confusing feature in the diagnosis of these cases seems to be the gradual onset of symptoms, and yet the secret of success in their treatment is an early diagnosis and early operation.

112 College Street.

## GANGRENE OF ARM, DUE TO THROMBOSIS GUMMA OF TESTICLE.

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BY CHAS. B. SHUTTLEWORTH, M.D.C.M., F.R.C.S., ENG.  
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Mary R., aged 38; English; strong and robust; admitted December 13th, 1908.

*Complaint.*—Great pain in left arm, with discoloration, coldness and numbness of hand.

*Family History.*—Unimportant, except that the mother died of diabetes.

*Personal History.*—Good habits; no history of venereal disease; has always worked hard; has had three children, one living, aged 20; two miscarriages at seven months, first three years ago and another one year ago.

*Present Illness.*—Four days ago she did her own washing, and her hands seemed perfectly well except for some rheumatic pains, which she says she has suffered from for last eighteen or twenty years. That evening she noticed the tips of her fingers of the left hand were whitish and just above the white area a bluish line. She felt a tingling sensation in the fingers. Towards morning the little finger was white up to the knuckle. Towards evening the whole hand became affected, and she suffered the most intense pain. Morphine was given, but did not control the pain. She then came into the hospital.

*Physical Examination.*—The left hand is powerless. The slightest touch on the arm causes great pain. The back of the hand is mottled and purplish in color. This extends down the fingers and for one-half inch above the wrist. The arm is somewhat swollen as far up as the elbow. The parts are cold to the touch. There is complete loss of sensation below the wrist, but above this the sensation is very acute. The pulse below the elbow cannot be felt. A dark line is seen just above the wrist, and there is a swollen, hard band present half-way up the forearm. Circulatory, respiratory, alimentary, genito-urinary and nervous system normal.

Four days after admission line of demarcation well formed above the wrist. Hand is very dark. Some odor noticeable. Pain very severe. Is restless and excited. Temp. 101 2-5. Operation arranged for next day, when amputation was per-

formed. Antero-posterior flaps were made. Very little bleeding took place. All veins and arteries filled with soft clotted blood. Wound healed by first intention.

All cases of gangrene may be classed as traumatic, infective or spontaneous. The case cited does not evidently belong to either the variety caused by injury nor to infective agents, so must come under the head of spontaneous gangrene. This is recognized by (1) well marked prodromata; (2) slow progress; (3) the imperfect vitality of the neighboring parts. Injury may play some part in its production, but is generally too trivial to cause the death of the tissues directly, and there is an absence of the grave signs of infection.

Several varieties of spontaneous gangrene are recognized:

(a) Gangrene from arterial thrombosis or embolism, met with in the convalescence of acute illnesses, especially typhoid and in the subjects of heart disease. The cause, symptoms and course exactly resemble gangrene following the ligation or rupture of a main artery. The patient suddenly experiences a severe pain, more often in the leg than in the arm. The part is found cold, anesthetic, slightly livid, loss of pulsation in the arteries, and the case goes on to dry or the mixed variety of gangrene.

(b) Senile gangrene. Generally in old subjects with weak hearts, rigid tortuous arteries and a feeble circulation.

(c) Diabetic gangrene. In those suffering from glycosuria.

(d) Obliterative or proliferative arteritis leading to gangrene. This occurs oftener in men than in women; more common in the lower than the upper limbs and in those of middle life. The limb affected has for some time been the seat of a very painful ischemia, made worse by cold and relieved by warmth. The part is cold, blue mottled and a little edematous, heavy and benumbed, and the main artery for some distance above the gangrenous area is found hard and pulseless.

(e) Raynaud's, or symmetrical gangrene.

(f) Trophic gangrene, due to paraplegia, hemiplegia, locomotor ataxia, spina bifidia, syringo-myelia, or diabetes leading to peripheral neuritis.

The symptoms presented in the case under consideration point to arterial thrombosis or embolus as the cause of the trouble. The general good health of the patient and the absence of heart disease would lead one to suspect some local change in the arterial wall with secondary thrombosis.



Simple chronic endarteritis resulting in atheroma, found mostly in elderly people, especially in alcoholics and those suffering from chronic Bright's disease, gout or syphilis, may here be excluded, for the other arteries of the body were normal.

Chronic syphilitic endarteritis, found in the tertiary stage and affecting the tunica intima, particularly of the smaller arteries, may lead in the end to occlusion of the vessel.

Lastly, we have the obscure lesion of the vessels, known as endarteritis obliterans or proliferans, occurring independently of gout, rheumatism, tubercle, syphilis or other constitutional disease, and independently also of embolism or injury. Under this head one would put the case presented.

It is not known whether this disease is truly syphilitic or not. In some cases an undoubted negative history is obtained. The only suspicious circumstance in this case is that the patient gave birth to two premature infants.

The disease is characterized by a patchy thickening of the tunica intima of a main vessel, which narrows and finally occludes the lumen. This new tissue becomes vascularized and organized into fibrous tissue. This disease stands in need of a distinctive name, for other forms of arteritis are equally "obliterating," "proliferating," and "hyperplastic." For this we must wait until its cause has been ascertained.

John T., aged 49; occupation, farmer; married; six children, alive and well; father died of cancer; has two brothers and two sisters, all healthy; admitted December 7th, 1908.

*Personal History.*—Has always worked hard. Uses spirits and tobacco in moderation. Denies all venereal disease.

*Present Illness.*—Eight months ago attempted to lift a cow out of the snow. Three days afterward he felt pain in the testicle of the left side, but not very severe. The scrotum became much distended, but not as hard as now. This swelling was poulticed for a couple of weeks, without producing any change. It has become much harder lately.

The tumor is due to a vaginal hydrocele and an enlarged testicle. Operation was performed and a radical operation was done for the hydrocele. The testicle was represented by a flattened mass, 4 in. long and  $2\frac{1}{2}$  in. wide. A portion of this was removed for examination, as the consent of the patient could not then be obtained for castration. Prof. McKenzie reported that the specimen showed caseation, but no positive evidence of tubercle; most likely tuberculous. After this the

man consented to have the testicle removed, which was done two days later. The specimen is here presented.

Tertiary syphilitic orchitis pathologically resembles the majority of tertiary manifestations in consisting of diffuse infiltration accompanied by overgrowth of connective tissue. If the whole organ is uniformly affected, the ordinary syphilitic sarcocele or sclerosis of the testis results. If more localized the gummatous variety is present, which is not so common as the diffuse form.

The specimen shown belongs to the gummatous type. On section the masses appear yellowish white, fairly well defined, undergoing the usual degenerative changes in the centre, due to lack of blood supply. The remains of the testicle may be seen to form a flattened-out spurious capsule around the gummatous growths.

## TWO CASES OF STEEL IN THE INTERIOR OF THE EYE, AND THEIR SUCCESSFUL TREATMENT.

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BY G. HERBERT BURNHAM, M.D. TOR., F.R.C.S. EDIN.

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Many, perhaps all of us, can recollect how hopeless we used to be in the presence of a piece of steel in the interior of the eye. Such an accident was generally looked upon as synonymous with the enucleation of the eye, or, if not, a long season of suspense and the constant fear of sympathetic ophthalmia. However, I can say regarding this latter disease, sympathetic inflammation, that of this justly dreaded affection I have not the same fear as oculists in general seem to have: for I have succeeded in saving eyes which have suffered from the milder, and also from the worst, forms of sympathetic disease.

Judging from the literature of this affection I am alone, apparently, in expressing such full confidence in an ability successfully to treat sympathetic inflammation.

Regarding, however, the subject of this paper, I can safely say that this feeling of inability to do anything regarding eyes injured by pieces of steel is now done away with, owing to the X-rays and Haab's magnet; for through them we can be sure of their presence and locality and of the means of their removal. My remarks will be founded upon two of my cases.

In one, which occurred several years ago, most opportunely the Haab's magnet had just been received. The late Dr. McMaster and myself tested it a few days after its arrival. The next day, almost, a man with a piece of steel in the interior of his eye presented himself.

Dr. McMaster, by the X-rays, accurately located it in the vitreous. It had in its passage wounded the inner third of the cornea, iris and lens. The magnet, mounted on a movable stand, was applied to the cornea a little to the inner side of the centre. It acted, and the piece of steel presented itself through the outer iris. There it lodged, and the magnet, though placed between the lips of the wound in the cornea, could not budge it. I now elongated the wound to the opposite corneal margin, just in front of the piece of steel. Now the magnet quickly removed it. This last elongation of the corneal wound allowed me to draw upon it in a straight line and thus successfully to take it out, whereas before doing so I failed on account of pulling at an angle.



This exemplifies the necessity of being patient and trying different lines of traction. Like a flash does the steel, when it comes out, appear on the tip of the magnet. In this case there was necessarily much disturbance of the various structures, and though granting an aseptic foreign body, still there was a natural fear of losing the eye. Owing to an unavoidable delay, several days elapsed before the magnet was used. It is sometimes advocated to make, in this form of case, an incision in the sclerotic back of the ciliary processes and through this opening to remove the piece of steel by the magnet.

I did have difficulty in saving the eye, but finally, after two months, it recovered, being perfectly quiet. There was bright perception of light with a good field. I gave iodide of potassium and mercury, internally, and kept upon the eye without cessation a large piece of ice. This was always put in a sling of cheesecloth and laid upon the closed eyelids with a thin pad intervening.

The use of ice in a rubber bag is a much inferior method. The cheesecloth enables the eye always to have the effect of the full chill of the ice, whereas using the bag, the latter is often only filled with cold water, the ice having melted. The water, as the ice in the cheesecloth melts, runs away, and hence the ice is always in contact with the eye; and also it can be noticed when the bulk of ice is much lessened, and thus put on a fresh piece without any delay. In this way the eye was kept thoroughly chilled for at least six weeks. This condition was a great check to the subsequent inflammatory changes, and so limited them as to enable the eye to recover therefrom. My last information was that the eye was quite quiet and the vision impaired by the corneal scar and opaque capsule.

The second case was about one year ago and was that of a man whose eye was wounded by a piece of steel, which penetrated the outer cornea and iris, and lodged midway between the lens and ciliary body without apparently affecting either of them. A delay in getting the magnet caused an exudate to surround the steel and pain began. However, warned by previous experience, I made an opening in the cornea opposite to it and finally landed the piece of steel. In this case, though I knew its position and the condition of the surrounding tissues, still one hour and a quarter elapsed before the steel sprang out and attached itself to the tip of the magnet. My first case took in all two hours. The magnet was fully acting upon the steel as evidenced by the jolting movements of the eyeball and head. Hence the necessity of perseverance if you wish to

succeed. This case when last heard from had good vision with the eye quite quiet. I am informed that I was the first in the city to use Haab's magnet. As I used it such a short time after its arrival, it seems to be a correctly made statement. The shorter the time after the lodgment of a piece of steel in the interior of the eye the magnet is used, the better the hope of recovery is allowed by all of us.

Alloys of iron may be wholly or nearly non-magnetic. The alloy of iron with manganese and the effect it produces in the destruction and alteration of its susceptibility to magnetism is interesting and surprising. Without going any further into the magnetism of alloys of iron, it is stated as a fact that special steels differ widely in their behavior when placed in the magnetic field. This ought to be borne in mind, although it is again stated, that all of them affect only slightly the question of removal from the eye.

## OCULAR CONDITIONS IN A CASE OF JUVENILE TABES, WITH PRESENTATION OF THE PATIENT.

BY J. T. DUNCAN, M.D.

The patient I present to the Section was referred to me by Dr. Stewart for examination. Her mother gave the following history. Seven years ago the girl was attending school in Owen Sound, apparently perfectly well. Her age was then thirteen. The first symptom which attracted attention was a swelling of the right side of the neck, but this disappeared in about a month. She then went to school again but had several attacks of vomiting. No cause was ascertained at the time for the vomiting. There were no gastric pains. She attended school for about a month, but began to suffer occasionally from severe pains in the head. These became so violent at times as almost to drive her crazy. She would scream with the pain, get out of bed, throw herself on the floor, go off in a swoon or trance and wake up screaming again. She often vomited during these violent paroxysms.

As there was no improvement and she was getting steadily worse, her medical advisers had her placed in the hospital.

At this time she was able to walk and could see perfectly, so far as her mother observed. She was in the hospital three months, but got gradually worse. At this time the symptoms were of cranial tumor, and a request was made to the mother for permission to operate. Little hope of recovery being held out, the mother would not consent to an operation. She took her daughter home, not expecting her to live. When the girl was taken from the hospital she was quite blind and unable to walk. The pains and vomiting continued for about a month after leaving the hospital. Then they suddenly ceased. This cessation was ascribed by the mother to a certain medicine.

She gradually gained strength, and in two years was able to stand, and gradually became strong enough to walk. When fully recovered she was sent to the Brantford School for the Blind, where she remained three years.

Two years ago she had diphtheria.

*Present Condition.*—She is a healthy looking, well nourished girl of twenty. There is no pain or headache. The functions of the body are carried on normally. No history of specific disease can be obtained.



*Eyes.*—The lids are normal, and descend normally. There is no history of diplopia, but the right superior rectus muscle shows paresis, as the eye cannot be carried upward fully. The other muscles act normally.

*Pupils.*—The pupils are large, and unequal, the left being the larger. The pupillary edges are not jagged or angular. The right pupil reacts slightly to light, the left is fixed, but they act in convergence. They are in fact typical Argyll Robertson pupils.

*Ophthalmoscopic Examination.*—The media are clear. The fundi easily seen. No abnormalities are present excepting that the discs show grey atrophy.

The vessels are normal, as Mott describes.

*Sensory and Motor Systems.*—There is no anesthesia and no loss of motor power.

*Knee Jerks.*—These are present, the right more pronounced than the left.

Co-ordination is perfect in legs and arms.

*Family History.*—The patient is the seventh child in a family of eight, five of whom are living. Besides the eight children there have been two miscarriages. Taken in order the first miscarriage took place a few months after marriage, the second took place between the births of the present patient and the last child in the family.

1. The first living child was a girl, apparently healthy in every way, and who attended school till the age of thirteen. She then was taken ill—vomiting being the earliest symptom. In a day or two acute pains in the head began, the pains were terrible, but not constant. The vomiting and pains continued for a week, and then ceased. Troublesome diplopia was complained of. During the following week paralysis of the right side supervened. She died at the end of the second week. She is said to have been studying very hard.

2. The next was a son, who is living and healthy, aged thirty.

3. The third is a daughter, who married and has two healthy children. She is now aged twenty-seven.

4. The fourth was a son, who left home years ago. He is supposed to be living.

5. The fifth was a daughter, who died at fifteen years of age, supposedly from cold contracted after a heavy washing.

6. The sixth was a daughter, who died last winter, supposedly from catarrh of the stomach.

7. The seventh is the present patient.

A miscarriage took place before the next child was born.

8. The eighth is a boy now aged sixteen, who is healthy and vigorous.

The father died of cancer, with no obtainable history of specific trouble. His chief complaint before his fatal illness occurred was neuralgia of the head.

The mother is living and gives a history of general good health.

*Morbid Anatomy.*—Here I shall only speak of the changes in connection with the ocular symptoms or conditions.

Taking them in their order we may first speak of the external muscles, second of the pupils, third of the optic atrophy.

First, then, the eye muscles. In many cases of tabes there is strabismus caused by the paralysis or paresis of one or other of the recti muscles, producing diplopia. These paralysees are due to degeneration of one or other of the nuclei of the nerves presiding over the motions of the eye, *i.e.*, the 3rd, 4th and 6th. The position of these nuclei may be seen by this diagram.

*Pupils.*—What is the morbid anatomy of the tabetic pupil? It is degeneration of the ciliary ganglion, and not, as formerly thought to be, disease of the cilio-spinal centres in the cervical region. This disease of the ciliary ganglion has been discovered by the careful investigations of Marina. This discovery clears up many difficulties. In this very case it enables us to understand the presence of the tabetic pupil when there is no sclerosis of the posterior columns. This case, then, goes to prove that Marina's conclusions are correct.

*Optic Nerve.*—The blindness of tabetic patients is due to degeneration of the nerve. The appearance has been well described by Mott as being grey, like a sheet of white paper lightly pencilled over. This degeneration or wasting begins usually in the ganglion cells of the retina, and the atrophy spreads centripetally, toward the primary optic centres.

Why should the optic nerve be so often attacked by the poison of tabes? The answer is that this poison attacks the centripetal nerve fibres in whatever region it is found. Take for instance, the posterior columns of the cord—these are formed by a number of neurons. Each neuron consists of a cell body, a peripheral process, and an axone. The peripheral processes are found distal to the ganglia, the cell bodies form the ganglia found on the dorsal roots, the axones form the posterior columns of the cord. The different portions of these neurons are attacked by the tabetic poison, and sclerosis results.

The retina and optic nerve are formed similarly. The separate neurons possess a cell body, a peripheral process and an

axone. The ganglionic cells of the retina answer to the cells of the spinal ganglion.

The axone of each cell passes to the optic nerve and these form the bulk of that structure. When the tabetic poison attacks the brain or organ of vision it destroys the neurons spoken of and we have optic atrophy (sclerosis). The poison, wherever it is, attacks the centripetal nerve fibres, hence we find the optic nerve so vulnerable.

Now as Mott remarks, we have various manifestations of tabes; it may begin in the brain, in parts connected with vision, in the spinal cord, or in nervous structures connected with the viscera, etc. But all of these are *one* tabes, and these may all be spoken of as para-syphilitic affections.

Are there any other cranial nerves with ganglia resembling the spinal? Yes, the auditory nerve, and the 5th in its Gasserian ganglion, in both is a similar arrangement, and both are more or less attacked and degenerated by the tabetic poison.

*Juvenile Tabes.*—One question remains for discussion. Do children suffer from tabes? Osler says they do not, but that the tabes of children is essentially different from that of adults.

But Cantonnet says we have a juvenile tabes exactly like that of the adult form.

The difference is more apparent than real. Osler is speaking of Freiderichs' ataxia (often called hereditary ataxia). This is seen in very young children, as young as two years of age, although it may also be seen as late as twenty to twenty-five. Friederichs' ataxia is characterized by much inco-ordination, nystagmus, but not usually by optic atrophy, and not by the Argyll Robertson pupil.

We have, however, juvenile tabes, of which this patient is an example, but it is very rare. Cantonnet had one case and has analyzed eighty-eight cases from the literature. He positively states that it is the same disease as is seen in adults.

The mean age of the beginning of juvenile tabes is fifteen years. (In this patient it began at thirteen years). Specific disease is as important a cause as in the adult form. Optic atrophy is common, but ataxia comparatively rare. Out of his cases seventy-six per cent. had no ataxia. Out of the eighty-nine, sixty-two per cent. were girls, while in adults by far the greater number are men, namely, 350 men to 19 women. Cantonnet finds that in juvenile tabes the cases of optic atrophy seldom develop ataxia, for a number of the cases (twelve out of eighty-nine) were followed from ten to twenty years and none of them died.



## THE PLASMA SOLUTION IN AFFECTIONS OF THE EYE, NOSE AND THROAT.

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BY MURRAY MCFARLANE, M.D.

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In addition to the many surgical and medical measures directed to the treatment of diseases of the eye, nose, and throat, we are frequently confronted by the necessity of cleansing or irrigating these organs, and the question arising is "How may this be accomplished with the minimum amount of irritation to the diseased structures?"

Fifteen years since, becoming dissatisfied with the existing formulæ commonly employed as sprays or douches in nose and throat work, I considered what would best meet the indications which were for a non-irritating solution, which must be of an alkaline reaction and which could be used for an indefinite period, if necessary, as a means of removing crusts or secretion from these organs and their accessory cavities.

The mucous membrane, of the nose particularly, is very intolerant of even the slightest irritant, and I found the combination of crude alkalis and antiseptics in common use very unsatisfactory and meeting no scientific indication, being in fact, a survival of the days when so-called "Catarrh" was treated by germicides of various natures. The solutions were not of sufficient strength to destroy the micro-organisms in any case, but were quite able to cause irritation and engorgement of the tissues if used for any length of time. Then we are also aware that when once a disease due to these organisms, attacks a mucous membrane and becomes manifest by increased secretion and swelling of the parts, as seen in acute rhinitis and influenzal attacks, they have penetrated to the basement membrane and live out their life history undisturbed by surface applications which cannot penetrate and destroy them, without injury to the tissues. I am here speaking of solutions containing antiseptics, used in the form and quantity of sprays and douches, not of local treatment of ulcers, etc., where drugs of sufficient strength can be employed without danger and under control of the surgeon. In ordinary chronic simple rhinitis very few organisms are to be found in the nasal cavities; the researches of St. Clare Thomson and others clearly establishing this fact so well recognized at the present time. In acute conditions of a catarrhal nature sprays are in the

majority of cases contraindicated owing to the possible danger of causing extension of the disease to the Eustachian tube and thence to the middle ear and mastoid.

After many trials of different salts, the alkalinity of the blood plasma was considered to promise the best results, the blood being of such an alkalinity as kept the balance between exosmosis and endosmosis, and certainly was a typically non-irritating medium, and incapable in a normal state of inducing any pathological cellular change.

"Castaigne and Rothery (<sup>1</sup>)" have demonstrated that a saline solution must be of a certain cryoscopic index, about 0.78C. If higher or lower it brings about histological changes in the tissues, and they believe that under normal physiological conditions, the osmotic tension is maintained by the sodium chloride, and other salts, being in proper proportion in the blood plasma.

"Achard and Paiseau (<sup>2</sup>)" by intravenous injections of hypotonic and hypertonic saline injections, .20 to 1.50C were able to set up Epithelial changes in the kidney. Experiments by "Roth-Schulz, and deKarosy (<sup>3</sup>)," are of interest as regards endosmosis and exosmosis. With blood upon one side of an animal membrane, diffusion is much slower than when water is used, owing to the different diffusibility of some of the blood salts, the chlorides passing more readily than the others contained in the plasma.

All this shows us that any solution of the same cryoscopic index, the same osmotic index, having the same salines, and the same specific gravity as the blood plasma, must of a necessity, be the most scientifically adapted to the purpose of a cleansing spray; or where it is desirable to use a non-irritating injection into the tissues of the body.

Any solution stronger or weaker is capable of bringing about cellular change, and upsetting the normal osmotic balance so necessary to a healthy condition of the parts. In consideration of these facts, I had a tablet made by Parke, Davis & Co. containing the osmotically active salts of the blood, which added to 1000 drops of water made a solution of the same alkalinity, specific gravity, and cryoscopic index, as the defibrinated plasma. For two years it was made up for my own use. Then after sending samples to Europe, and America, the firm got such encouraging reports that my permission was asked to place the tablets upon their public list. This was given and the Plasma Nasal Tablet (Dr. Murray McFarlane) for use in the nose and throat may now be obtained from the above, and several other firms of manufacturing chemists.

They are year by year increasingly used in different parts of the world; and the writer has received many very gratifying reports, from some of the most eminent men in the medical profession, telling of the satisfaction they had derived, from their use in affections of the nose and throat especially; they finding it as I have done, to furnish, where sprays are indicated, a cleansing medium which can be used for an indefinite period without the slightest irritation or engorgement of the tissues. The addition of 1-16 of a grain of menthol to each tablet renders it very pleasant and aromatic, disguising the taste of the sodium chloride.

In diseases of the eye characterised by an increased secretion, the plasma solution has been found very suitable as a means of cleansing the cul de sac. It may be used instead of distilled water in collyria containing remedies not incompatible with the sodium and potassium salts. It has also been used with good results, either alone, or containing cyanide of mercury, dionin, and other drugs in subconjunctival injections.

Prof. Darier, of Paris, in his "Ocular Therapeutics (4)," says: "Many liquids have recently been proposed for subconjunctival injection, a new physiological salt representing exactly the osmotically active salts contained in blood has been used by Poehl apparently with excellent results." (It is described in Merck's Annual, March, 1900). The same salts were introduced to the American profession in 1895 by the writer five years prior to Poehl's investigations.

The solution can be used for irrigation purposes in any part of the body, and without the menthol has been of service instead of the normal saline, after general operations with shock, and per rectum, to relieve thirst, where fluid cannot be taken into the stomach.

In conclusion the writer would say that one tablet is to be added to four tablespoonsful of luke warm sterile water, or in proper proportion if a less or greater quantity is desired, and used as a spray or irrigation whenever in the opinion of the surgeon such is desirable; for hypodermic or subconjunctival injection it is used without the menthol.

#### REFERENCES.

<sup>1</sup>La Semaine Med., 1903.

<sup>2</sup>Compt. Rend. Soc. Biol., 1904.

<sup>3</sup>Arch. Int. de Physiol, Vol. 1, 1904.

<sup>4</sup>Ocular Therapeutics, 1903, page 30.



PREGNANCY COMPLICATED BY PRESACRAL OR  
POSTRECTAL MYOMA, CÆSAREAN SECTION,  
SAVING BOTH MOTHER AND CHILD.\*

AND

DIVERTICULITIS COMPLICATING PREGNANCY, OP-  
ERATION, RESECTION OF SIGMOID, RECOVERY.\*

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BY DR. J. F. W. ROSS,

Professor of Gynecology, University of Toronto.

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Mrs. O., age thirty. I was asked by Dr. McCormack to see a patient with him. She was taken to St. Michael's Hospital and carried directly into the anæsthesia room. The doctor had endeavored to deliver her with forceps but found this to be impossible as she had a tumor growing in the pelvis—a presacral, postrectal fibro-myoma. On examination I found the cervix well dilated and decided that as an attempt had already been made under an anæsthetic to deliver her with forceps, a cæsarean section should be performed without delay in order to save the life of the child. Foetal heart sounds were becoming feeble. As rapidly as possible the patient was prepared, and assisted by Dr. McCormack I opened the abdomen in the median line. The uterus was drawn out, the upper portion of the wound closed with temporary sutures, after placing two sterilized towels over the intestines. The uterus was now incised and the placenta was at once encountered, and when its edge was disturbed, sharp hemorrhage occurred, but the hand was passed on in and the child was rapidly delivered by the feet. The navel was then cut between two pair of forceps and the child handed to an attendant for resuscitation. The placenta was now swept off with the hand, the uterine arteries being held meanwhile by two assistants, one on either side. As this compression was not altogether satisfactory I applied a clamp on either side; this soon controlled the hemorrhage. The wound into the uterus was now carefully closed by using catgut sutures to the muscle, turning in the mucous membrane towards the uterine cavity. Fine silk was used to the peritoneum and an external layer of silk was applied by "mattress" suture to prevent any leakage into the abdominal cavity.

The operation consumed only a short period of time. The wound was closed with catgut to the peritoneum and silk worm

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\* Read before the Academy of Medicine, Toronto, February 16th, 1909.

gut to skin and fascia. The pulse was about seventy-six when all was over; the child was almost gone but was resuscitated. It was a female.

I have not examined the tumor since the operation on the second of January.

The mother and child were presented, both in excellent health.

Mrs. F., age thirty-five, married, admitted under my care in the Toronto General Hospital. A month before her admission, on October the 14th, she had been delivered of a child, and went out in ten days, contrary to orders. November the 9th, getting about actively though not feeling first rate. November 12th pain came on in the abdomen confining her to bed. She then saw Dr. Hendry, one of my junior assistants, as an outpatient and he advised her to come into the hospital. Symptoms of sepsis set in with pain. On examination a mass was to be felt at the left side of the uterus; the nature of the mass could not be definitely ascertained, but the temperature appeared to indicate the presence of pus. It was thought that perhaps the case was one of streptococcic infection of the left ovary with abscess formation. Owing to the continuation of the septic temperature it was considered advisable to operate. On the 21st of November, 1908, assisted by my senior and junior assistants, Drs. Marlow and Lynd, I opened the abdomen in the median line, then placed the patient in Trendelenburg posture and carefully packed back all intestines. A mass was found adherent to the rectum high up at the sigmoid flexure, this was gradually peeled off and the parts were isolated, and it was found that the ovaries and tubes were healthy on both sides. The case then became obscure, until at last it was seen that the chief portion of the swelling was extraperitoneal, and that as the rectum was peeled from it there was evidently a direct communication between the mass and the interior of the rectum; this portion of the sigmoid that was perforated was also thickened and felt as if it contained a new growth. It was now quite evident that it would be impossible to close the perforation of the intestine as it would not hold stitches, and it was found necessary to perform resection of the gut. Clamps were placed above and below, fecal matter stripped back, and after ligating the mesenteric vessels, about ten inches of the bowel were removed. End to end closure being completed by direct suture, the mucous membrane being first approximated, then the muscular coat and then two layers of overlapping mattress sutures were placed in

order that everything might be made water tight. As the rest of the infection was extraperitoneal nothing could be done with it, and iodoform gauze packing was placed down over the mass in the neighborhood of the round ligament. During the anæsthesia the breathing became shallow and once stopped, the pulse became uncountable, but an interstitial saline, sixteen ounces, brought the pulse down to 130. The patient was very low at the end of the operation. The abdomen was closed with through and through silk worm gut sutures. The first movement of the bowels occurred twelve days after operation. They were kept quiet with opiates up to that time. After the third and fourth days small enemata were administered but without satisfactory result.

The patient had a sharp attack of bronchitis, due to the irritation of the anæsthetic. She made an uninterrupted recovery, and was discharged from the hospital on the 26th of December.

An examination of the specimen removed showed the case to be one of diverticulitis. Perforation of the mucous membrane of the intestine had evidently taken place through the formation of an ulcer, and infection had spread up and down between the intestinal coats, and at last the peritoneal coats had been perforated and the infection was thereby further distributed out along the round ligament.

A case such as this should be kept in mind in these modern days when there is such a tendency to lay the blame for all puerperal infection on the obstetrician. The patient is now in perfect health.



## Selected Articles.

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### INDUCTION OF LABOR AT TERM AS A MATTER OF ROUTINE.\*

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BY ADAM H. WRIGHT, B.A., M.D., M.R.C.S. (ENG.),  
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For the purposes of this paper it will be considered that the duration of an ordinary pregnancy is about 270 days, or nine calendar months, at the end of which time the patient has reached full term. It will also be supposed that pregnancy may be, and is frequently, prolonged three, four or five weeks after term.

The following is a brief report of a case not unusual in obstetrical practice. Mrs. A., aged thirty-five, IV-para, suffered considerably from vomiting early in pregnancy, and other effects of toxemia at a later stage. She expected labor January 1, and made arrangements accordingly. At the end of four weeks thereafter there were no signs of labor. Patient became very weary, sleepless, and depressed. Her husband became cross and angry, as he wanted to go to British Columbia, but was afraid to leave his wife before confinement on account of her serious condition. Apart from this disappointment he was not pleased about paying \$18.00 a week to the waiting nurse who was engaged for January 1. The accoucheur started for Europe January 28, leaving in his place, however, a competent man. The newcomer had rather a sorry time for five days, but was much pleased when labor commenced, February 2. The labor was prolonged and very difficult, forceps being used finally. The child, well-formed, healthy-looking, and weighing 12 1-2 pounds, died in half an hour. The mother was seriously ill for many weeks, confined to her bed for four months, and now, four years after, has not fully recovered strength.

This case illustrates very well the fact that unduly prolonged pregnancy involves serious danger to mother, and child, and great inconvenience and worry to friends, nurse, and physician.

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\* Read before the Toronto Academy of Medicine, February 18, 1909.

These evils are generally recognized, and many obstetricians say we should induce labor before grave dangers arise, but the recommendations made are not sufficiently definite to be of much use, especially to general practitioners. The majority of obstetricians consider that the induction of labor is a serious interference with Nature's work, involving some danger. If, however, we can perform the operation in such a way that it causes no danger, or at least very much less danger than the prolongation of the pregnancy, to the patient, we might justly conclude that early interference after term is not only justifiable but advisable. Those who have given up the barbarous methods adopted in so-called *accouchement forcé* are now inducing premature labor by simpler means and with much less danger to patients as compared with the results of a few years ago.

During the last three years I have followed a rule which I have been reluctant to describe until I had sufficient experience to enable me to recommend it with confidence to others. Thus far I am well pleased with the results. My rule is to commence *to induce labor within three days after the patient has reached term as a matter of routine in all cases.*

The following reports will illustrate to some extent the methods employed and the results obtained.

Mrs. B., aged thirty. Second pregnancy. Expected confinement June 10. On the evening of June 10 the nurse was summoned, and on her arrival prepared the patient for labor. On the following morning a vaginal tampon was introduced, after which the patient got up and went about the house as usual suffering no inconvenience from the tampon. Next morning, June 12, the tampon was removed and another introduced. When this was removed on the following day, June 13, the cervix was softened, os softened and slightly dilated, pelvic floor and vulva softened and dilatable. A bougie was then introduced into the uterus and a tampon into the vagina. Uterine contractions commenced about midnight, fourteen hours after introduction, and the child was born four hours after. Easy labor.

Mrs. C., aged forty. Fourth pregnancy. Had one convulsion in second month and afterward serious symptoms of melancholia. When five months advanced, a consultation was held, but it was decided not to empty the uterus then. Expected confinement July 14. No sign of labor July 15. After preparation a vaginal tampon was introduced. On the next day, July 16, the tampon was removed and a second intro-

duced. Labor commenced six hours after, the parts being fully dilated in five hours. Easy forceps delivery.

Mrs. D., aged thirty-two. Third pregnancy. Expected confinement August 15. No sign of labor August 18. Introduced tampon, and the patient got up and went about as usual. Next day, August 19, removed tampon and introduced second tampon. August 20, removed this tampon and introduced bougie. There was some resistance after the bougie had been passed apparently three inches within the uterus, but with a little coaxing this was overcome, and the bougie was pushed to the fundus. The membranes were ruptured high up, and the amniotic fluid commenced to discharge while the tampon was being introduced into the vagina. The operation was finished at 11 a.m. Labor commenced at 1 p.m., and the child was born at 4 p.m. Easy labor.

It was noticed in these and other similar cases that it was easy to induce labor at term. The patient is not, as a rule, excited or alarmed. It is only necessary to say, "We will not do much, but we wish to assist Nature in bringing on labor." After the tamponade the patient can generally go about and do her ordinary work, and sometimes does not even know that the vagina is plugged. As a rule, she does not know after the introduction of the bougie that anything of the sort is in the uterus. After such introduction, however, it is not considered advisable to allow the patient to walk about. The vaginal tampon appears to have a two-fold effect: First, it softens and dilates the cervix and tends to cause uterine contractions. Second, it softens and dilates the vagina, pelvic floor, and perineal body in a way that makes expulsion or extraction through these parts much more easy than under ordinary circumstances.

#### METHODS OF PROCEDURE.

It will be noticed that the methods employed are not exactly those of Krause or Schauta, but are a combination of the two. The plan (so far as I know), first recommended by Schauta, of inducing abortion and labor by vaginal tamponade would always be admirable if it were effectual. Many who have tried it say that it is practically useless. But do such men understand Schauta's method? Certainly, many do not. In the first place, it may be stated that the vagina cannot be properly plugged while the patient is lying on her back or on her side. The patient must be put in Sim's position. The perineum and pelvic floor must be thoroughly retracted by a Sim's



speculum, and the vagina properly ballooned, so that its vault being thus distended may be completely filled by the material used for packing. It is only necessary to pack tightly about the upper two-thirds of the vagina. The mistake commonly made of packing the entrance of the vagina tightly generally causes great pain, and frequently retention of urine.

As before mentioned, after this minor operation is performed the patient may walk about with little or no inconvenience. The material used for packing is five per cent. iodoform gauze or a rather fine iodoform cheesecloth.

In introducing a gum elastic bougie (11 or 12, English size) the safest way is to place the patient on her back, introduce a weight speculum, seize the anterior lip of the cervix with a volsellum forceps, pull slightly, pass in the bougie, and push it up between the membranes and the uterine wall to the fundus if possible. Frequently, we do not use the weight speculum, but introduce two fingers of one hand, place the tips behind the os, and pass in the bougie over these fingertips. This method was adopted in the case of Mrs. D., but it will be noticed that the introduction of the bougie was followed by an outpour of amniotic fluid. It may appear to some inconvenient and awkward, when both the bougie and gauze are used, to place the patient on her back for the introduction of the bougie, and then in the semiprone position for the vaginal tamponade. This, however, is a small matter, especially if one is assisted by a skillful nurse.

It may be said that we cannot always tell when the patient has reached term. That, of course, is true, and such uncertainty may cause some perplexity. Under such circumstances we may find that the cervix is "taken up," and if so we need not delay. In any case it is better, as a rule, to deliver two weeks before term than to wait for four or five weeks after term.

In conclusion the following recommendations and explanations are made:

Induce labor in all cases within two or three days after the expected date of confinement without waiting for any signs of labor.

First plug the vagina according to the Schauta method, making a special effort to pack the vault tightly.

After packing allow the patient to get up and go about if she wishes.

Remove the tampon in twenty-four hours, introduce a new

plug, and again allow the patient to get up and go about if she chooses.

Remove the second tampon in twenty-four hours after its introduction.

If by this time labor has not commenced it is generally advisable to pass a bougie into the uterine cavity before introducing the third tampon.

In such cases we have found that labor always commences shortly after this Schauta-Krause operation.

In a fairly large proportion of cases the use of the bougie has not been found necessary, as labor comes on shortly after the first or second vaginal tamponade.

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—*American Journal of Obstetrics.*

## PUS TUBES IN THE MALE—TREATMENT BY VASOSTOMY.\*

BY WILLIAM T. BELFIELD, M.D., CHICAGO.

The pus infections of the urinary duct have been for centuries the object of clinical study and surgical exploration; those of the less conspicuous seminal duct remained virtually unexplored until the twentieth century. Pus tubes in the male are to-day as generally unrecognized and surgically ignored, as were the pus tubes of the female thirty years ago.

*Clinical Anatomy.*—Two anatomical features of the seminal duct are clinically important:

1. The distensibility of the seminal bladder is slight, because it is enclosed in an unyielding fascial envelope. When the minute natural outlet, the ejaculatory duct, is occluded by inflammatory swelling or otherwise (and this often happens) the vesicle cannot expand indefinitely, as does the urinary bladder. When the accumulating pus or secretion exceeds the limited capacity of the vesicle, it is forced through the only other outlet, the vas deferens. Since the vas is highly muscular, the epididymis less so, the tail of the epididymis is the catch-basin for pus

\*Synopsis of President's address before the American Urological Association, June 7, 1909.

from the vesicle—not merely in gonorrhea, but in other urethral infections also.

An opening into the vas—vasotomy—affords not merely the means of injecting solutions into the vesicle, but also an exit for pus from the entire seminal duct, vesicle and epididymis included.

2. Ampulla and vesicle are closely bound to the neck of the bladder; infections of the former may therefore induce bladder symptoms, and may even invade the bladder wall by continuity. Hence symptoms of cystitis are sometimes relieved by draining the vesicle, when treatment directed to the bladder is futile.

*Some Symptoms Caused by Pus Tubes.*—Urinary—Frequent and painful urination, retention, pyuria, hematuria.

Genital—Frequent and painful emissions (even in married men), priapism, pyospermia, hematospermia; the chronic, infections may result in fibrous thickening of vesicle, vas and epididymis, with hydrocele, impotence, sterility.

Rectal—Pain, local proctitis, causing patients to consult rectal specialists.

Abdominal—Pain from pus tubes caused erroneous diagnosis of appendicitis in two instances, with futile operation in one, by a competent surgeon; mistaken diagnosis of ureteral calculus and renal colic have also come to my notice.

*Surgical Treatment.*—The vesicle—Incision of the suppurating vesicle from the perineum was made by Lloyd (1889); Dittel, the father of perineal prostatectomy, used this incision to reach and incise the vesicle (1894). This operation has been improved and extensively used by Fuller (in over 100 cases). It is bloody, imperils the integrity of the rectum, but seems devoid of mortality.

The distended vesicle can be safely and easily opened from the rectum, the approach preferred by most surgeons. Bleeding can be minimized by incising with the cautery. If the vesicle be empty and its outlines obscure, it can be distended by injection through a vasostomy. When both bladder and vesicle are distended, the latter becomes very accessible through the rectum. Klotz, in 1895, introduced the nozzle of a special syringe through the endoscope into the urethral end of the ejaculatory duct, and injected liquid into the vesicle. The patient promptly developed epididymitis, presumably from forcing the vesicular contents through the vas. This ingenious procedure is, for several reasons, lacking in clinical value.

The Epididymis—Early in the last century the infected epididymis was punctured by Vidal and others, not for the evacu-



ation of pus, but for the relief of tension. Incision of the non-fluctuating epididymis and tunica vaginalis for the evacuation of pus was introduced independently by Escat (1903) and Bel-field (1905), the latter using the incision to inject vas and vesicle at the same time. The epididymis incision has been practised by Bazet also, and has been developed and advocated by Hagner in acute gonorrheal epididymitis. It is equally necessary in non-gonorrheal, tender indurations of the epididymis, some of which I have found to contain pus.

Since non-tuberculous infections reach the epididymis by way of the vesicle and vas, acute suppuration of the epididymis proves existing infection of the vesicle; obviously then the latter should be medicated by injections through the vas whenever the suppurating epididymis is incised—a procedure that may be designated epididymo-vasostomy.

The advantages of this procedure over medical treatment are: (1) shortening the time of pain, fever, swelling and confinement; the patient is ready to resume ordinary avocations in two to four days; (2) avoidance of the usual chronic, tender induration in the tail of the epididymis, which sometimes contains pus and gives rise to recurrent epididymitis. Whether the chance of permanent occlusion of the epididymal canal is increased or diminished by the incision, remains for larger experience to determine.

The prevention of Epididymitis—Since the invasion of the vesicle by the gonococcus or certain other bacteria renders extension to the epididymis imminent, such acute vesiculitis should logically demand immediate opening or even division of the vas; for by this harmless procedure the trail to the epididymis is interrupted, while the vesiculitis can be effectively treated by injections through the vas into the vesicle. As most of my patients have preferred to risk epididymitis rather than an "operation," my observation of this preventive measure is too limited to be convincing. Six cases were so treated; all escaped epididymitis—whether through the vasostomy or not remains undetermined. The first who gladly submitted was a young man who had lost one testicle through a previous gonorrhea; for him an operation to preserve his sole testicular treasure had no terrors.

*Vasostomy and Epididymo-Vasostomy.*—Four years ago I published the method—original so far as I have learned—of draining and medicating vas, ampulla and vesicle through an incision into the vas—vasostomy; and extending the incision into the epididymis when necessary—epididymo-vasostomy. I have

now opened the vas 149 times in 107 patients, usually in the office under cocaine anesthesia, often without assistance, sometimes passing a wire through the vas and ejaculatory duct to the urethra.

*Value of Vasostomy.*—By this trivial operation, the entire seminal duct is relieved of abnormal tension, vas and vesicle are drained and medicated, the epididymis is protected from infection, or, if already infected, from pressure infection; it has sometimes seemed that the pus drained from the epididymis also. Medication of the vesicle is effective, because the injected solution remains in its cavity for hours or days. When preliminary cleansing is desired, a slow stream can be injected through the vas to the vesicle and milked into the urethra by the finger in the rectum (demonstrated with argyrol solution).

*Results of Vasostomy.*—These have not been uniformly brilliant; in this tentative work diagnoses have doubtless often been faulty. Yet many cases refractory to standard treatment have been promptly cured, such as frequent urination, gleet, admixture of blood with semen, recurrent epididymitis. The following are specimen cases: (1) Man 41 years old, referred by Dr. H. B. Favill; recurrent vesiculitis and epididymitis of left side, repeatedly causing fever, frequent urination, pain along seminal duct, confinement to bed. Vasostomy and repeated irrigation of vesicle with protargol solution was made. No return of symptoms during two years. (2) Man 58 years old, referred by Dr. F. B. Turek; frequent urination, oozing of blood-stained mucus from meatus, bloody emissions; duration several months. Right vesiculitis; vasostomy and irrigation, with prompt cessation of symptoms.

*Technique.*—Two features are important: (1) fixation of the vas, which otherwise may drop into the scrotum and be recaptured with difficulty; (2) pulling of vas through the skin-cut above the skin, for manipulation. Details may obviously be varied at the discretion of the operator; the following is one of several useful methods: After the usual cleansing and cocainizing, the cord is caught by a vulsellum forceps whose points do not quite meet and hence do not pierce the sub-scrotal structures; the cord is caught an inch lower by a second vulsellum. If necessary to secure space, the contracted dartos can be relaxed by a hot fomentation. The cord between the vulsella is supported by the left forefinger while a half-inch cut is made down to the sheath of the vas. This is carefully opened, the vas pulled out and its canal opened longitudinally; a thread or wire may be passed into the vas for exploration if desired. A canali-

culus or other blunt needle attached to a small syringe is introduced into the vas and the solution slowly injected; 2 or 3 drachms often distend the vesicle uncomfortably. The finger in the rectum can press some of the vesicular contents into the urethra, permitting the injection of more solution into the vas. A catgut or other thread, passed into the lumen of the vas upward for a quarter-inch and then out through its wall and tied loosely above the skin, serves, if subsequent injections are necessary, to keep the vas open, to pull the vas out of the skin-cut, and to guide the needle into its lumen. If complete transverse division of the vas be deemed necessary, the silk-worm or catgut thread is passed into the lumen and out through the wall of each cut end, and the thread ends tied loosely above the skin. When reunion of the cut ends is desired, this thread loop is tightened, the thread serving as an axis splint which secures exact apposition of the cut ends of the vas. This principle, first published by Mayo (*Annals of Surgery*, Jan., 1895, which publication has been ignored by certain later writers), supersedes all other methods of reuniting the divided vas. Incidentally, I have discovered that a vas, of which a half-inch has been resected, can spontaneously reunite with a patulous lumen; evidently because the two ends are kept in the same axis by the sheath of the vas, and are brought together by the shortening of the scrotum through the contractions of the dartos, which usually follow a wound of the scrotum. This is important to remember in performing vasectomy.

The vas can be opened through either anterior or posterior wall of the scrotum; though each has its advantages, the latter seems preferable, the patient lying in the semi-prone position.



## AN INSTRUCTIVE FATAL CASE OF APPENDICITIS WITH ADVOCACY OF EARLY OPERATION.

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By J. S. BODEN, M.B., B.S. LOND.,

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Dr. F. J. Smith's report of an obscure and fatal case of appendicitis decided us to bring this case forward.\* Like his, it was mysterious and indecipherable, the patient dying from pyæmia after a few days' illness. In his case general peritonitis was a part of the pyæmia. Both began with indefinite abdominal symptoms and diarrhœa. Both had rigors, which denoted the generalising of the poison, and, we know now, the futility of operation. There can only be one method of treatment likely to be successful in such cases—namely, early operation. It is to urge this and to aid others, when they meet similar obscure cases, that we venture to publish this paper.

The patient, aged 15 years, a lad of markedly bilious temperament, had not been very well for some days—"lackadaisical"—to use his mother's expression. On the evening of Jan. 21st he went to a whist drive and partook during the evening of sardine sandwiches, a sausage roll, trifle, jelly, and claret cup. Next day he was very lethargic, went to lie down on his bed in the afternoon, getting up for a walk before tea. During the evening he complained of headache, sore throat, and his temperature was found to be 102° F. On the 23rd he remained in bed all day, his temperature falling from 101 in the morning to normal by the evening; during the day he had four loose actions of the bowels. On the 24th, with the exception of a continuance of the diarrhœa (three actions) he appeared quite well, taking his ordinary food at meal times. His morning temperature being normal, he remained up from after breakfast till 10 p.m., when he went to bed apparently neither over-tired nor feverish. The first phase of the illness terminated at this time, as is shown on the chart. On the 25th he got up to breakfast and appeared well till mid-day, when he was given some bovril, which he vomited about two hours later, followed by some retching and pain in the upper

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\* *The Lancet*, February 13th, 1909, p. 463.

part of the abdomen. He was seen that evening and found with a temperature of  $98^{\circ}$ , a pulse-rate of 82, a furred tongue, heavy breath, and some epigastric tenderness. His bowels acted twice loosely on this day. On the morning of the 26th he expressed himself as feeling better; there had been no further sickness and he said that the pain in his stomach had gone. He was thirsty, but had no desire for food. His temperature was normal; his tongue was covered with a thick white fur; the epigastric tenderness had gone, but on examining his lower abdomen there were distinct rigidity of the right rectus and an indistinct resistance to be felt just above and internal to the right anterior superior iliac spine. Just above the crest of the ilium and at the outer border of the quadratus lumborum pressure elicited pain. Per rectum there was no fulness or resistance. A provisional diagnosis of catarrhal appendicitis was made. At 6 p.m. the same day he had had a slight rigor and his temperature rose to  $102^{\circ}$ , his pulse-rate was 100, the "on guardedness" of the right rectus had disappeared, and a fairly definite resistance in the right lumbar region could be felt, which was not markedly tender on pressure. The bowels were inactive during the 26th and 27th. On the 27th the patient passed a very fair night, rousing at intervals of two hours for a drink, not complaining of pain in the abdomen, and able to lie quite comfortably with the right thigh extended. At 8 a.m. his temperature was  $99.2^{\circ}$ . When seen at midday it was  $105^{\circ}$ , with a pulse of 114; local examination showed no change from the previous night. At 8 p.m. his temperature was  $104.6^{\circ}$ , his pulse was 120, and his appearance strongly suggested typhoid fever. During the evening, on and off, he had pain in the right side of the abdomen, which was relieved by the application of a hot-water bottle, and passed a very fair night till 5 a.m. on the 28th, when he had a second slight rigor, with a return of pain in the right side of the abdomen. His temperature after the rigor was  $103.2^{\circ}$ . At 8 a.m. it had fallen to  $99.4^{\circ}$ , but had risen again at 10 a.m. to  $105^{\circ}$  with a pulse of 105. A blood specimen was taken which gave a negative typhoid reaction. In view of the second rigor, Mr. W. H. Battle was asked to see the case and be prepared to operate. When he saw the boy at 2 p.m. the temperature was  $103^{\circ}$  and he had a good quality pulse of 98; his tongue was certainly cleaner, and it was considered that operation was not necessary on account of the lad's excellent general condition, the fact that the bowels had acted without pain twice in the night, the indefinite character of the local symp-

toms, the probability that the appendix was lying behind and to the outer side of the cæcum (the most favorable position for any active mischief remaining localised), and that it was the seventh day of the illness. The same evening (the 28th) the spleen could just be felt and the lad's condition was so like that of typhoid fever that relief was felt no operation had been done during the afternoon. His temperature remaining fairly steadily at from  $103^{\circ}$  to  $104^{\circ}$  till next morning (the 29th), with a pulse of from 98 to 104. At 10 a.m. his temperature had fallen to  $99^{\circ}$  and his pulse to 76. During the three days (28th to 30th) the bowels continued to act loosely from three to five times in the 24 hours. A third rigor occurred on the afternoon of the 29th, his temperature at 6 p.m. rising to  $105.6^{\circ}$  (the pulse was 112), reduced by sponging to  $102.6^{\circ}$  and falling to normal at 10 p.m. and to  $97^{\circ}$  at 2 a.m. (a fall of  $8.6^{\circ}$  in eight hours). Apart from the remittent (and intermittent) temperature the boy's condition appeared good and there was no marked change either generally or locally. Dr. T. W. Hicks of Finchley saw the case in consultation on the 30th. There were no indications for operative interference and nothing could be found to account for the rigors; he had had a fourth in the early morning of that day. The local condition at this time prompted the somewhat old-fashioned diagnosis of "typhlitis," a definite, only slightly tender, sausage-shaped swelling being felt with its large axis vertical rather external to the region of the cæcum. The temperature kept very remittent on the 30th and 31st, and six rigors occurred during the 48 hours. When seen by Mr. Corner on Feb. 1 the patient was bright and cheerful, the tongue was covered with white fur, the temperature was  $99.6^{\circ}$ , and the pulse 84. The abdomen was not distended, moved on respiration, could be palpated all over, and was only tender in the right loin. The right rectus was a little more tense in its middle than the left. Some cutaneous hyperæsthesia was present in the loin and at the side; there was none in front. The liver was not tender or enlarged. Considering the *pros* and *cons* of the case the appendix seemed most likely to be the cause of the trouble, and, in view of the boy's getting worse since he was seen on the Thursday before by Mr. Battle, operation was recommended, on the distinct understanding that the infection might have become too generalised for the operation to save the boy.

Mr. W. S. Rooke, anæsthetist to the Great Northern Hospital, gave the anæsthetic. The abdomen was opened through the right rectus and the cæcum found. It was fastened by



adhesions into the loin. Gauze plugs were used to pack off the peritoneal cavity, which was uninfamed, and the proximal portion of the appendix was followed to the tip which was found in a small abscess cavity under the liver at the back of the abdomen and on the outer side of the ascending colon. It was removed, a gauze plug packed in the abscess cavity, and the wound closed round the gauze drain. The boy bore the operation well. On examination the distal half inch of the appendix contained a faecal concretion, was gangrenous at the tip, and perforated over the concretion. The patient rallied well from the operation and his condition on Feb. 2nd was distinctly hopeful; there were no further rigors, no sickness, and the bowels acted naturally twice during the day; he had an attack of faintness during the early morning of Feb. 3rd and slight icterus was noticed. He was dressed under an anæsthetic at midday, and at 2 p.m. his temperature rose to 103° and his pulse to 140 (at no time during his illness up to this time had his pulse exceeded 120), and on examination an area of harsh pleural friction was found over the lower left axillary region, with physical signs pointing to some underlying pneumonic consolidation. From this time he went rapidly downhill with dilatation and failure of heart, and died at 9 a.m. on Feb. 4th.

This case illustrates many clinical object-lessons in an important and common disease. 1. The great value of early operation (within 36 hours of the onset, which would have been the only chance of saving the patient). Early operation is the method of the future; far more appendices will be removed in the acute stage and far fewer in the quiet interval. When the patient is a young subject, in whom appendicitis is so common, an exploratory operation is justifiable in the early stage, even when the diagnosis is indefinite. 2. The illness began with indefinite abdominal symptoms and diarrhœa, unaccompanied by sickness. The diarrhœa is a toxic symptom, and if that symptom is present during or followed by appendicitis, that appendicitis is of a more than usually dangerous form. 3. Rigors are infrequent with appendicitis. A rigor at the beginning of the illness may mark the onset of an unusually toxic appendicitis. But should it occur later in the disease, a rigor suggests pylephlebitis, portal pyæmia, or general pyæmia, under which circumstances a fatal result may be expected. 4. The type of fever as shown in the accompanying chart is very unusual in appendicitis. It is markedly remittent. 5. But one of the most remarkable clinical features of

the case was that when the temperature was low, the pulse was quiet, and the boy not ill; yet he was probably doomed by the time of the second or third rigor. 6. Clinically, the illness was in two phases, the first without rigors subsiding before the second began. Although the illness appeared to subside, the cause of it did not, the suppurative process reawakening and rapidly killing the patient. The almost universal formation of pus in appendicitis constitutes its great danger and variations.

To sum up, this case illustrates the import in appendicitis: of an indefinite onset, of continued diarrhœa, intermittent fever, and rigors. It shows how both the local and general clinical conditions may be unreliable. And that in indefinite cases it is better to rely on probability—a young person with serious abdominal mischief very probably has appendicitis, the seriousness of the illness may show itself in the pulse, the temperature, the sickness, the diarrhœa, etc.—and act on that, than to rely on the very indefiniteness of the case and pursue ordinary domestic treatment.—*The Lancet*.

# Progress of Medical Science.

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## MEDICINE.

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IN CHARGE OF W. H. B. AIKINS, F. A. CLARKSON, AND BREFNEY  
O'REILLY.

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### **Creosote in Pulmonary Tuberculosis.**

Beverley Robinson, of New York, is of the opinion at the present time that there is only one medicinal treatment that is really valuable in pulmonary tuberculosis, and that is beechwood creosote, internally and by inhalation. In order that it may be curative it must be used with intelligence and persistently during many months. Internally the best formula is:

Beechwood creosote (Merck's), 6 drops; glycerine, 1 oz.; rye whisky, 2 ozs. Dose, 1 dessertspoonful every two, three or four hours, best diluted with a little water.

The best formula for inhalation is: Equal parts of beechwood creosote (Merck's), alcohol, and spirit of chloroform. Use 10 drops on the sponge of a perforated zinc inhaler. Repeat a few drops as required. The inhaler should be used frequently; at first for a few moments each time; later (after a week or more) it may be used half an hour or an hour at a time. Finally, it may be used almost continuously during the day and frequently all night, without interfering with sleep. Occasionally it is necessary to lessen the proportion of creosote, in the inhaling formula at least, for a while and until the patient is accustomed to the use of the inhaler.

A few patients never use the inhaler in a thoroughly satisfactory way by reason of personal idiosyncrasy or inability to understand about its proper use. Whenever the inhaler is used during many hours of the twenty-four, a smaller amount of creosote is required internally. When, on the contrary, the inhaler cannot be used frequently and for a long while, it is necessary to give more creosote internally. In but very few cases is it desirable to go beyond half a minim every two hours. Usually, when intolérance has arisen, it is because of too large or too concentrated doses. Creosote should always be given in solution.

Following out his plan of treatment carefully, the author



states, will relieve most patients of unpleasant symptoms. It will help cure a large number. It will hurt none. It is the best adjunct to fresh air, sunlight, good food, and rest.

Without this treatment many patients will die; with it, taken in time, many will recover who otherwise would not. The author's conviction is born of over twenty-five years of a large and varied experience, and he believes there is no treatment of any value, local or general, that he has not faithfully tried.—*Amer. Jour. Clin. Med.*, July, 1909.

### **Atropine Methylbromide and Atropine Sulphate in Diabetes.**

J. Rudisch, visiting physician to the Mt. Sinai Hospital, New York, in a preliminary report strongly recommends the use of atropine, especially in the form of the methylbromide, in the treatment of diabetes. He has used the drug in a series of cases and finds that the carbohydrate tolerance is decidedly increased, and that there is a reduction in the amount of sugar excreted. He administered the atropine in the form of both the methylbromide and the sulphate. The former has the advantage of being much less toxic, but its effects are not so prompt as those of the sulphate; as the initial dose of the methylbromide he gave 2-15 grn. t. i. d. to adults, gradually increasing this by 1-15 grn. until 8-15 grn. t. i. d. were being taken. In one case 3 grn. were given daily over a short period with no other toxic effect than dryness of the throat.

The initial dose of atropine sulphate should be 1-150 grn. t. i. d., which may be gradually increased to 1-20 grn. t. i. d. Children require a dosage proportionate to their age. The youngest patient, a nine-year-old boy, received an initial dose of 1-250 grn. of the sulphate three times a day, and this dose, in the course of several months, was gradually increased to 1-10 grn. per diem.

It is noteworthy that these unusually large amounts of atropine are well tolerated, provided the initial dose is small and the increase gradual. It is not necessary to attain the maximum dose in the majority of cases, however, much smaller amounts often causing the glycosuria to disappear. With the appearance of the first toxic symptom, usually a marked dryness of the throat, the atropine was either stopped entirely, or, more often, the attempt to increase the dosage was temporarily abandoned. It was always possible to resume the drug after a period of rest.

While the tolerance for atropine varies in different individ-

nals, the author has not observed a single case in which a peculiar susceptibility totally precluded the administration of one or other of the salts previously discussed. In no instance was an atropine "habit" acquired, nor were there any deleterious effects upon the general health observed from its prolonged administration.—*Med. Record*, June 26, 1909.

## OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, K. C. M'ILWRAITH, FRED. FENTON  
AND HELEN MACMURCHY.

### Problems still Unsettled, Requiring for their Solution the Combined Efforts of the Obstetrician, the Biochemist, and the Clinical Pathologist.

Sir John Byers, of Belfast, who delivered the address in Obstetrics at the recent meeting of the British Medical Association, spoke about unsettled problems, as follows:

We have accomplished much in the last quarter of a century, but there are still many questions in obstetrics that await solution. How little we yet know as to the real nature of menstruation! Is dysmenorrhoea a disease, or is it a symptom of many underlying conditions? What is its relation to sterility? What a field the diseases of pregnancy afford to the careful scientific investigator! We speak of the toxæmias of pregnancy, but what are these toxins and how and where are they elaborated? What are the factors in the production of herpes (hydrops) gestationis? What really is eclampsia? How does tubal pregnancy occur? What is the cause of chorion-epithelioma? How do diseases of the placenta arise? Why are women at childbirth so susceptible to bacterial infection? Why do the bacteria travel at one time along lymphatics, at another in the course of blood vessels? We know that puerperal infection is caused by micro-organisms, but how do these microbes become virulent and in what way do they lose their malignant influence? Has season, race, or the predisposition (lowered resistance to infection) of the individual attacked anything to do with their power? In other words, while we know a great deal about the seed, we are still largely in the dark as to the soil. No doubt operative inter-

ference has accomplished much in puerperal infection, especially in cases of localized abscess, pus tubes, and intense peritonitis limited to the pelvic organs, and occasionally in ligation or excision of thrombosed veins in puerperal pyaemia (as has been done in infected thrombi in mastoid disease); still, when severe puerperal infection is present, can we yet boast of having advanced much beyond the view of William Hunter, who said, "Treat these in what manner you will, at least three out of every four will die." Have our surgical measures accomplished much in the very severe types of puerperal infection? Speaking for myself, in the most fatal and formidable form of puerperal infection—that due to the *Streptococcus pyogenes*—I have seen little advantage so far from surgical interference. The serum treatment of puerperal infection has also been disappointing clinically and, indeed, with the exception of the antidiphtheritic and the antitetanic serums, is the preparation of the various antibacterial serums based on exact scientific principles? Certainly no one should use an antibacterial serum "except where, as in the case of an antidiphtheric serum, the pathologist is prepared to give him definite information with respect to the amount of protective substances in the serum." Is the future of these severe puerperal infection cases, so far as treatment is concerned, not with that school established by one who received his early education in Belfast, Sir Almroth Wright, and his pupils, whose work is revolutionizing every branch of medicine, and who from each case of puerperal infection may elaborate the proper vaccine-therapy?—*B. M. Jour.*

### **Saving the Perineum.**

The best safeguard for the perineum is the slow descent of a well flexed head. Passage of the head through the vulva may be compared to that of a foot and ankle through a small cylinder. The small fontanelle, the large fontanelle and the neck may be compared to the toe, heel, and instep of the foot. It will be seen that pressure with the thumb downward upon the toe, and with the fingers upward against the heel until the instep has passed the lower plane of the cylinder lessens the danger of impaction and facilitates egress. Pressure made with the thumb upon the small fontanelle and with the fingers against the large fontanelle, until the neck is well in the symphysis pubis, will minimise the danger of tearing when the head descends.—*Little: Mont. Med. Jour.*



## Editorials

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### INTER-PROVINCIAL REGISTRATION.

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We publish in this issue a communication from a physician of Toronto who recently returned from the Pacific Coast, *via* Banff and Winnipeg. The letter is interesting in many respects, but especially because it expresses the sentiments of (we think) a majority of physicians in Canada. We are more than pleased, however, to be able to tell our correspondent that he is entirely mistaken in certain respects.

The Council of the College of Physicians is not sitting "idly by" while this great, strong wave in favor of Inter-Provincial Registration is sweeping over many provinces of Canada. The matter has, in fact, been very carefully considered by that body. It has not only "considered," but has acted, and is acting probably in a way which will be quite satisfactory to all who take an intelligent interest in the subject. At the last meeting of the Council the matter was discussed, and a resolution to send representatives to the West to confer with representatives of the Western Provinces as to reciprocity in its various aspects was passed. Drs. Spankie and Ryan were asked to go to the meeting of the Canadian Medical Association in Winnipeg. After the interesting discussion there, it was deemed advisable to have the Ontario Medical Council represented at the meeting in Banff, to which our correspondent refers. Dr. Spankie was present at the Banff meeting, which was held September 25th.

Yes, the Council has heard of the Roddick Bill of 1902; but, unfortunately, under existing conditions, it is not workable. On this account a resolution was unanimously passed at the Winnipeg meeting, which was substantially as follows (we quote from the *Winnipeg Bulletin*): "That the Canadian Medical Association urge on Dr. Roddick the importance of impressing on the Dominion Government the desirability of amending the Medical Act of 1902, so that when five or

more provinces agree to the provisions, and pass the necessary legislation to make it effective, the Bill may become law, and be effective in these provinces; Further, that a committee should be appointed, with representatives from each of the provinces, to consult with Dr. Roddick as to the provisions of the Bill."

All things considered, it would seem fair to abstain from hostile criticism of the Council's attitude until the reports of its representatives who visited the West have been received and acted on. May we hope that its members will rise equal to the occasion, and do gracefully what the majority of the profession of the province wish them to do.

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### AN OFFICIAL JOURNAL.

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The writer up to the present time has kept aloof from all discussions respecting the advisability of establishing an official medical journal for the Canadian Medical Association. The position at the present time is not fully understood by a large proportion of the members of that body. A brief explanation seems now in order. The matter was placed in the hands of a standing committee, known as the Finance Committee, under the chairmanship of Dr. John T. Fotheringham, of Toronto, formerly one of the editors of the *Canada Lancet*, with instructions to establish a journal as soon as financial conditions warranted such an undertaking.

With this end in view it was deemed advisable to seek incorporation. A committee, with Dr. Shillington, of Ottawa, as chairman, was appointed to look after the matter; and, as a result of its work, the association was incorporated by Act of Parliament last session. The next step was the somewhat important one of increasing the annual fee from two to five dollars. Under such circumstances the fact that the attendance this year was the largest in the history of the association was very satisfactory to the Finance Committee. It was clearly evident

that nearly, if not quite all the members at the meeting in Winnipeg wanted to see a journal established as soon as possible.

There can be no doubt at the present time as to the duties of the officers of the association. They should do all in their power to help the committee in its arduous task. There was at all times a feeling of optimism at the Winnipeg meeting. Canada is growing in many ways and in various directions. The members want the association to become bigger and broader in every sense. They wish to discuss from year to year subjects of national importance, and they want an official organ.

We are told that the official publication will be quite different from the present medical journals, and will not enter into competition with them. Such being the case it is hoped the existing journals will support the association as loyally in the future as they have in the past.

A. H. W.

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### DR. COOK AND THE NORTH POLE.

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People have been looking for the North Pole for a long time, and now a member of our profession claims that he has been the first to reach it. We learn from the Journal of the American Medical Association that Dr. Frederick Cook, of Brooklyn, was born in Sullivan County, New York, June 10, 1865. After taking an arts course in the University of the City of New York he took a medical course in the College of Physicians and Surgeons of Columbia University, New York, and practised in Brooklyn for a short time. He soon became interested in scientific exploration, and became surgeon of the Peary expedition in 1891. He was also surgeon of the Belgian Antarctic Expedition, and, on account of his good work in it, received medals from the Royal Geographical Society of Belgium. He was also decorated with the Order of Leopold by the King. We are told that another of his exploits was



the ascent of Mount McKinley in Alaska, which he was the first, if not the only one, to accomplish, in 1906. His writings are very interesting. "Through the First Antarctic Night," described his trip with the Belgian expedition. "To the Top of Mount McKinley," described his ascent of that mountain. There seems to be some doubt as to the truth of Dr. Cook's statements. Some people say he never reached either the top of Mount McKinley or the North Pole.

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### CANADIAN MEDICAL ASSOCIATION.

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In the opinion of many the 42nd annual meeting of the Canadian Medical Association, held in Winnipeg from the 23rd to 25th of August, was the best meeting held in many years. The attendance was the largest, 338 registering; the organization was about perfect and reflected great credit upon the Committee of Arrangements in Winnipeg; the social entertainments were first-class, and the addresses and papers of a high order of excellence. It was noteworthy that two Canadians were selected to deliver the two most important addresses, those in medicine and surgery, which were delivered by Professor Adami and Professor James Bell, respectively. Canadians also delivered the addresses before the sections on obstetrics and ophthalmology, namely, Drs. Adam H. Wright and R. A. Reeve, Toronto. These all brought out good audiences, as did the symposium on the kidney and the discussion on inter-provincial registration. It was to be regretted that the Milk Commission did not receive as good a hearing as it should have, but this was altogether due to the fact of an excursion crowding too closely upon the time allotted to the discussion on milk. We are of the opinion that this discussion would have been one of the features of the meeting if it had not been for the accident referred to, as Mr. McGill, chief analyst for the Dominion, Mr. Rutherford, chief veterinary for the Dominion, and Dr. Westbrook, of Minneapolis, were present to take part in this discussion. Those who, however, did remain had the pleasure of listening to the report of the work done by

Dr. C. J. Hastings, of Toronto, and speeches from Mr. McGill and Mr. Rutherford. Two items stand out prominently in connection with this meeting, namely, the desire for an official journal for the Association, and Dominion registration. The former was left in the hands of the Finance Committee to go on with; the latter will be taken up by a special committee which will join hands with Dr. Roddick and the presidents or representatives of the various medical councils.

The resolution *re* Dominion Registration, which was unanimously adopted, reads as follows: "Therefore I (Dr. R. W. Powell) move that this Canadian Medical Association, now in session, urge upon Dr. Roddick the great importance of impressing upon the Government and Parliament of Canada the desirability of so amending the Canada Medical Act of 1902 that when five or more provinces agree to the provisions and pass the necessary legislation to make it effective, the bill may become law, and apply to those provinces which have so legislated. That in order to strengthen Dr. Roddick's hands a committee be formed of representatives from each of the provinces to consult with him on the provisions of the bill and as to the amendments necessary or desirable, and finally that the various colleges of physicians and surgeons or Provincial Licensing Boards in the Dominion be respectfully invited to nominate at least one of their own numbers to serve on such committee."

Annual Report of General Secretary.—There were two hundred and twenty-eight registered at the 41st annual meeting at Ottawa last year.

When last the Association met in Winnipeg in 1901 you were pleased to elect me your General Secretary. The number in attendance then was 178.

During the succeeding years the attendance was as follows:

Montreal, 1902 .....	330
London, 1903 .....	302
Vancouver, 1904 .....	267
Halifax, 1905 .....	222
Toronto, 1906 (B. M. A. Meeting) .....	79
Montreal, 1907 .....	235
Ottawa, 1908 .....	228

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The total attendance for these seven years 1,463

An average of 209 a year. The previous seven meetings had a total attendance of 1,076, an average of 152 a year.

The total membership at the beginning of the Winnipeg meeting in 1901 was 900. Now the total membership is about 1,500.

Let us review, however, the work of the Association in other respects.

Besides the numerous addresses and scientific papers the Association has produced during the past seven years, which have gone to enrich Canadian, other British and United States medical literature, we have dealt with several questions of practical medical politics.

Established in 1901 in Winnipeg, the Canadian Medical Protective Association has perfected its administration, and has demonstrated to the medical profession of Canada and to others that it is an organization of the first importance in the medical life of the Dominion.

Dominion registration has not come under our attention these seven years, as about that time it had been placed in the hands of Dr. Roddick, who finally succeeded in having passed The Canada Medical Act, now standing as Chapter 137, Revised Statutes of the Dominion, 1906. Again this question comes before us. May we hope that it will be pushed to a final and successful conclusion.

The question of a Bureau of Health for Canada has year after year engaged the attention and consideration of this Association. Time and again the Federal Government has been requested to consolidate its various medical services, at present administered under four separate Departments of the Crown, into one Bureau of Health, under one of the existing Ministers—and then extension and expansion thereof. So far the Association has gotten the assurance from the head of the Government, the Prime Minister: "It is only by knocking at the door that the door will be eventually opened."

Reorganization of the Association has been successfully accomplished, which reorganization looks for the affiliation of all the provincial medical associations and the establishment of a journal to be the official journal of the Association.

A Milk Commission was appointed last year at Ottawa, which has been doing a great amount of work, the results of which will be brought before this meeting.

By Act of the Federal Parliament, assented to May 19, 1909, the Canadian Medical Association is now an incorporated body. The several projects before the Association at the present time call for good financial support. In the past the Association has endeavored to do a certain amount of use-



ful work, but year after year it becomes manifest that the work of the Association cannot be carried along as successfully as it should be, and as it could be were its financial position assured. Now that the Association is an incorporated body, it may be permissible to suggest that there may be some members thereof who, either of themselves or through others, could voluntarily contribute to the financial support of the Association, and thus the more effectively ensure the carrying out of those projects the Association has set out to accomplish.

All of which is respectfully submitted.

GEORGE ELLIOTT,  
*General Secretary.*

Toronto has been selected as the place of meeting of the Canadian Medical Association in 1910, with the following officers: President, Dr. Adam H. Wright, Toronto; General Secretary, Dr. George Elliott, Toronto; Treasurer, Dr. H. B. Small, Ottawa; Vice-Presidents and Local Secretaries, the presidents and secretaries of the provincial medical societies *ex officio*; Vice-President for the Province of Quebec, Dr. Normand, Three Rivers; Local Secretary for Quebec, Dr. R. P. Campbell, Montreal; Finance Committee, Dr. J. T. Fotheringham, Toronto (Chairman), Dr. F. N. G. Starr, Toronto, Dr. S. J. Tunstall, Vancouver, Dr. Murray MacLaren, St. John, N.B., Dr. James Bell, Montreal, and the President and General Secretary; Chairman of Committee on Medical Legislation, Dr. A. T. Shillington, Ottawa; Chairman of Committee on Medical Education, Dr. R. A. Reeve, Toronto; Chairman of Committee on Hygiene and Public Health, Dr. A. T. Shillington, Ottawa; Chairman of Committee on Amendments to Constitution and By-Laws, Dr. H. B. Small, Ottawa; Chairman of Committee on Reports of Officers, Dr. E. Ryan, Kingston; Chairman of Committee on Necrology, Dr. J. H. Elliott, Toronto; Chairman of Milk Commission, Dr. C. J. Hastings, Toronto.

Dr. R. A. Reeves, Toronto, was elected chairman of the Executive Council, and the following members thereof were in attendance: Elected by the Association—Dr. R. W. Powell, Ottawa; Dr. A. T. Shillington, Ottawa; Dr. Murray MacLaren, St. John, N.B.; Dr. R. A. Reeve, Toronto; Dr. John T. Fotheringham, Toronto; Dr. J. H. Elliott, Toronto; Dr. Chas. J. Hastings, Toronto; Dr. J. C. Mitchell, Brockville, Ont.; Dr. Ingersoll Olmsted, Hamilton; Dr. J. George Adami, Montreal; Dr. Edward Ryan, Kingston; Dr. H. A. MacCallum, London, Ont.; Dr. H. G. McKid, Calgary; Dr.

James Bell, Montreal; Dr. R. A. Kennedy, McLeod, Alberta. Representing Nova Scotia Medical Society—Dr. John Stewart and Dr. George M. Campbell, Halifax. Representing the Ontario Medical Association—Dr. D. J. Gibb Wishart and Dr. F. N. G. Starr, Toronto. Representing Manitoba Medical Association, Dr. Harvey Smith (President), Dr. R. S. Thornton, Deloraine, and Dr. S. W. Prowse, Winnipeg. Representing British Columbia Medical Association—Dr. S. J. Tunstall, Vancouver. Special Committee on Medical Education of School Children: Dr. John Stewart, Halifax; Dr. Murray MacLaren, St. John, N.B.; Dr. S. J. Tunstall, Vancouver; Dr. R. W. Powell, Ottawa, and Dr. R. J. Blanchard, Winnipeg.

Dr. W. J. Mayo, Rochester, Minn., was elected an honorary member of the Canadian Medical Association at Winnipeg.

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**ABSTRACT OF ADDRESS OF THE PRESIDENT,  
DR. R. J. BLANCHARD, AT THE  
WINNIPEG MEETING.**

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Dr. Blanchard opened his presidential address in a humorous vein, with a few touches of prophecy, merely to point out what could be done in the way of developing the knowledge of medical science and the advancement of the profession. There were at present approximately 6,000 medical men in Canada, and this was the only inter-provincial organization. There was great need of a closer organization, not for the purpose of advancing their monetary remuneration or to draft laws to make the study of medicine a closed corporation for the few, but rather to broaden their efficiency and by an interchange of idea and a centralization of efforts, to develop all lines of investigation. Some persons were of opinion that medicine was a realm of mystery, while on the contrary it should be the effort of the profession to give all possible information which was for the benefit of the human race. There was a great opening in medicine for men with money who could afford to give their whole time to research without having to depend upon private practice for funds. It was the duty of every doctor to defend medicine from the inroads of quack-

ery. And there was one thing which the association should seek, and that was the power to discipline members of the profession more severely than is possible under existing laws.

#### AS TO EXPERT TESTIMONY.

Recently attention has been repeatedly drawn to the unreliable nature of expert testimony in the law courts. The matter had come to such a pass that it was a subject for ridicule and jurists should try to find some way to remedy the evil. It seems difficult to understand why the provincial barriers should not be removed and the whole medical profession of Canada placed upon a single standard. Federal authorities, he felt, would be much better suited to handle a subject of such magnitude. The laxity of provincial and municipal authorities in taking steps for the prevention of the spread of disease was almost criminal in some respects. They should be induced, if possible, to take a more active and intelligent interest in this matter, for proper precautionary measures were of inestimably greater benefit than any amount of treatment. Then, too, everything possible should be done to raise the standard of the medical men, not so much by extending the term of study and making it more expensive, but rather by making the examinations more difficult, giving better facilities for study, and by gradually weeding out the undesirable.

#### THEORY AND PRACTICE.

Touching on the question of hospitals, Dr. Blanchard said that the difference between state-owned and charity-supported hospitals was just the difference between theory and practice. While the state-owned hospital was undoubtedly the more desirable in theory, there were so many derogative influences at work that it had never proved a success. It seemed impossible to lift it entirely above the realm of politics and in addition it lost the sympathetic support of the whole community. Federal control of infectious diseases was to be desired, with properly qualified officials to look after everything of this sort. It would be a measure of protection to the people of Canada as a whole. The handling of insane patients was one which needed great improvement, the existing methods being like a page from the dark ages. In the earlier stages the handling of insane persons should be a department of the hospital work, where physicians could have an opportunity of studying the patient. As matters stood now patients did not come under the attention of the medical profession till they were



so far advanced as to have to be sent to the asylum, so that outside of the alienists the medical profession knew little of these diseases of the mind. The practice of confining insane persons in jails and police stations was brutal and inhuman. There was one question which the people of Canada should take up more actively and that was the training of the body as well as the minds of the children.

The medical profession could not but recognize the fact that physical as well as mental training were essential to national development. When Greece was at the height of its glory this was one of the first laws of the country, and to-day in Sweden the matter was being taken up actively and intelligently. In the opinion of the speaker, boys between the ages of 14 and 18 years of age could not do better for themselves than to spend three months of the summer in the country under military discipline. Now they loaf about the theatres or in the parks where they get a low ideal of sports as they are now carried on. A sound, healthy constitution and a willingness to obey orders were learned by boys under military training, and these were matters which a nation could not afford to ignore. At the present time Canada is far behind the nations of the world in social and other development. An excuse was made that the country was young, but that excuse should not have to be made. For instance, in the study of the handling of tuberculosis, Canada ranks very low and has made but little real progress. As a starter school teachers should be paid better than starvation wages when better teachers would be induced to stay in the ranks. The country must afford it. People should give up a few of their luxuries if necessary, and there were huge sums spent on public work which was not nearly so important. It means the development and growth of the children of the nation. Advanced education is all well enough but it is not so essential. And then this advanced education is the reason for a great many failures and social misfits. There should be an awakening of public interest in the public health. At the present time hundreds of thousands of dollars would be subscribed for the treatment of a disease, but it was impossible to raise anything for the prevention of a disease. This could not be better evidenced than in the hiring of cheap, inefficient men to fill the posts of city engineer or medical health officer. The men in these positions should be the best available. The children in the public schools should be medically examined by competent men either at the expense of the parents or if necessary, of the state.

## Personals.

Dr. A. Primrose returned to Toronto from Budapest September 24.

Dr. Alex. McPhedran returned to Toronto from Budapest September 18.

Dr. William H. Lowry, of Toronto, has removed from 2 College Street to 102 College Street.

Dr. H. A. Bruce returned from Budapest by way of Naples, and reached Toronto September 20.

Dr. E. B. Hardy, Bloor St. and Euclid Ave., has been appointed an associate coroner for Toronto.

Drs. Stanley Ryerson, W. E. Gallie, and George S. Strathy, of Toronto, have removed to 143 College Street.

Dr. Charles Trow, of Toronto, was married to Miss Helen Gertrude Matthews, also of Toronto, September 22.

Dr. Ernest Jones, 407 Brunswick Ave., Toronto, after spending two months in Europe, returned last month.

Dr. Edmund E. King has returned from Atlantic City, where, he attended the meeting of the Roentgen Ray Association.

Dr. W. H. B. Aikins has returned from Europe, where he attended the meeting of the International Congress at Budapest, Hungary.

Dr. G. Sterling Ryerson has returned from Europe, where he attended the meeting of the International Congress at Budapest, Hungary.

Hon. Dr. J. O. Reaume, Minister of Public Works, returned to Toronto September 18, after having spent more than three months in Europe.

Dr. J. Orlando Orr, of Toronto, sails for Ireland October 14. Before his return, he will visit Scotland, England, and some countries on the Continent.

Dr. Moffitt Forster (Vic. '65), of 200 Ossington Avenue, who met with a serious accident last March fracturing the left femur is now convalescent and able to be about.

Dr. Murray MacLaren, of St. John, N.B., went out to the Pacific coast after the Winnipeg meeting. On his return journey, he stopped in Toronto, and remained for a few days, from September 22 to September 28.

Drs. T. J. Johnston, R. S. Richardson, and J. Robert, of Toronto, after doing post-graduate work in London, England, passed the examinations for the "double qualifications," M.R.C.S., Eng., and L.R.C.P., Lond.

Dr. Oswald T. Dinnick, who left Toronto last spring to do post-graduate work, has requested leave of absence for one year from the University of Toronto. If his request is granted, he will probably remain in England until next October.

Dr. C. A. Langmaid, '06 graduate of Toronto, has returned from the old country, after spending three years abroad, attending the hospitals in London, Edinburgh, Glasgow, Dublin and Paris. He has settled at 23 Brunswick Ave., and will practise general medicine.

Dr. Frederick A. Cleland, who graduated from the University of Toronto in 1901, and practised for some years in New York, has removed to Toronto, and opened an office at 134 Bloor West, and announces to the medical profession that he will devote his attention to gynecology.



## Obituary.

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### JAMES FULTON, M.B.

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Dr. James Fulton, of St. Thomas, one of the most prominent physicians in Western Ontario, died in the Victoria Hospital, London, Ont., September 15, aged 58. Dr. Fulton attended the Winnipeg meeting, and on his return he went into the hospital for treatment. The cause of death was shock following an operation. He received his medical education in Trinity Medical College and graduated in 1876. After graduating he did post-graduate work in London, Dublin and Edinburgh, receiving diplomas in all three cities—Surgeons, London; King's and Queen's Colleges, Dublin; College of Physicians, Edinburgh. In addition to a large general practice he was at the time of his death surgeon of the Michigan Central R.R., President of the Amasa Wood Hospital, and Chairman of the Board of Health of St. Thomas.

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### GEORGE EDMUND HUSBAND, M.D.

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Dr. G. E. Husband, of Hamilton, died suddenly of apoplexy, October 1st, aged 70. He graduated in 1861, and after practising in Galt for a few years removed to Hamilton about thirty-five years ago.

## Correspondence.

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### DO SOMETHING.

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*Editor of CANADIAN PRACTITIONER,—*

Immediate action is urgently required in regard to the now pressing question of Inter-Provincial Registration. The Council of the College of Physicians and Surgeons of Ontario has sat idly by, and to-day (September 25th) representatives of the four Western Provinces of Canada meet in Banff to arrange the preliminaries of a Central Examining Board for the medical profession in Manitoba, Saskatchewan, Alberta, and British Columbia. The profession in general have approved of inter-provincial action. They desire reciprocity, not only in Canada, but with Great Britain. The Council must know this. And yet they have continued their policy of masterly inactivity until they have lost their leadership of the profession even in our own province (if, indeed, they ever had it), and have placed us well in the rear of this most important movement. Did they ever hear of the Roddick Bill for 1902? Do they know that at this moment they ought to be actively engaged in arranging with the Ontario Cabinet to bring in at next session legislation to enable us to avail ourselves in Ontario of Dr. Roddick's Bill, the Canada Medical Act of 1902? And the Council cannot too soon take steps to identify themselves with the movement to secure a Central Examining Board in medicine, with jurisdiction from the Ottawa River to the Pacific Ocean. This would answer the question, "What is the good of the Council, anyway?"

M.D.

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### OPEN LETTER.

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The following open letter is published with the sincere hope that the objective point may be attained, and the Clinical aspect of Medicine and Surgery receive the serious consideration that it deserves.

*Editor of CANADIAN PRACTITIONER,—*

A meeting of physicians and surgeons interested in Scientific Clinical Research is called for Wednesday, October 27,

1909, at John Ware Hall, Boston Medical Library, No. 8 Fenway, Boston, Massachusetts. The meeting will come to order at 10 a.m., and carry its sessions through Wednesday, and, if necessary, through Thursday and Friday.

The object of the meeting is: First, to establish an American Association of Clinical Research. Second, to establish clinical research on an incontrovertible scientific basis in hospitals. Third, to institute an American Journal of Clinical Research, in which the work of members of the American Association and of others doing clinical research work in a scientific manner shall be published.

You and your friends are herewith cordially invited to participate in this meeting and in the proposed movement of scientific clinical research.

This invitation is extended to all physicians and surgeons whose interest goes beyond the immediate case work of ordinary clinical societies; and it is hoped that the invitation will be accepted by all medical practitioners, irrespective of their present medical affiliations, who can appreciate the necessity for establishing on an incontrovertible scientific basis the certainties and limitations of the present practice of medicine and surgery before attempting to add to the already large and cumbersome field of medicine.

The American Association of Clinical Research is not intended to disturb the present medical affiliations of its members nor to interfere in the very least with the duties they owe and the privileges they enjoy by virtue of their affiliation with any existing national medical body.

The American Association of Clinical Research is to take cognizance of the fact that the clinic requires cold facts and conclusive methods, and upon these fundamental requirements the structure and the work of the American Association of Clinical Research are to be built.

It is of the utmost scientific importance to establish conclusively all that is at present true in medicine and surgery, and only upon such proved knowledge, to base any further advancement. The clinic deals with clinical entities and not, like the laboratories, with parts as entities. Therefore, clinical research differs, and must differ, from experimental laboratory researches. Clinical research must consider clinical entities, and when considering parts, it must consider them only as parts and not as wholes. All that subserves the object of obtaining and investigating clinical facts and principles



belongs to clinical research and the laboratory is a part of the means of clinical research, but only a part.

The crux of the matter appears to be that experimental laboratory proof is not sufficient clinical proof. In order to advance in an irresistible line, clinical research must be based on a conclusive form or method of clinical proof. In experimental proof, we dislocate a part from a whole and attempt to prove the whole from the part, as though a dislocated part could always prove the whole. Or, we attempt to prove facts in one species by facts in another species, as though the two species were identical. For instance, the experiments made on animals to elucidate certain elements of fever bring out a fact of almost insurmountable difference between man and the lower animals, the fact that man has associated with the nakedness of his body a highly perfected power for regulating his temperature, a highly developed vasomotor system and a vast array of sweat glands, a characteristic complex of things which apparently no other species of animal life presents. Experiments made on animals to prove febrile or other clinical phenomena in man, may be suggestive, but for obvious reasons cannot be conclusive. To prove observations in man, the observations must be made on man and not on animals. But observations on man even are not necessarily conclusive. Individual observations on man cannot be conclusive, because the same experience cannot be repeated, and when we prove by numbers, we compare similar but not identical experiences. Analogy is not conclusive proof. Identity alone is conclusive proof; but since, in medicine, identical experiences cannot be repeated, we must provide simultaneous identical experiences in order to have proof by identity. Clinical proof is conclusively established when all observations and experiments are made conjointly by at least two competent men, preferably of opposite ideas, at the same time. Conjoined critical observation and experiment, at the bedside and in the laboratory, as may be required, furnish simultaneous identical experiences, the proof proceeding on the principle that a whole can be proved only by the whole and not by dislocated parts.

These and other weighty questions await your assistance for a necessary solution. The benefit that will accrue, both to medicine in particular and to the medical profession and humanity at large in general, from a satisfactory establishment of scientific clinical research, can be easily surmised. Come prepared, yourself and your friends, to give to this matter your mature convictions and your personal assistance.

## CORRESPONDENCE.

667

Only from a critical interchange of critically acquired opinions, can we hope for clearness and for the clarification of the medical atmosphere now charged with confusion and indifference.

Your communication, indicating your interest and your expectation of being present at the meeting in Boston on October 27, next, is eagerly awaited, and on receipt of the expression of your interest, further developments will be communicated to you personally in due time.

Please address your communications at the earliest possible date directly to JAMES KRAUSS, M.D., 419 Boylston Street, Boston, Massachusetts.

Yours fraternally,

(Signed) JAMES KRAUSS, M.D.,

Chairman Committee American Association Clinical Research.  
419 Boylston Street, Boston. August 18, 1909.

## Book Reviews.

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**PROGRESSIVE MEDICINE.** A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences, edited by Hobart Amory Hare, M.D., assisted by H. R. M. Landis, M.D. Vol. III. Sept., 1909. Lea & Febiger, Philadelphia and New York, 1909. The contents of this volume are: Diseases of the thorax and its viscera, including the heart, lungs and blood vessels, by W. Ewart; dermatology and syphilis, by Wm. S. Gottheil; obstetrics, by Edw. P. Davis, and diseases of the nervous system by Wm. G. Spiller.

As practical as ever, and as full of meat, we welcome this useful quarterly to our desk. All the articles are excellent, but we would especially commend the section by Dr. Ewart, where the progress for the year is put most concisely. There is nothing else like *Progressive Medicine* in the English language.

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**INTERNATIONAL CLINICS.** A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, surgery, medicine, neurology, pediatrics, obstetrics, gynecology, orthopedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene and other topics of interest to students and practitioners by leading members of the medical profession throughout the world. Edited by W. T. Longcope, M.D., Philadelphia. Vol. III., nineteenth series, 1909. Philadelphia and London: J. B. Lippincott Company. 1909.

This collection of masterly articles improves each year, and this particular volume is, we think, exceptionally good. Written clearly and concisely, they are always helpful and interesting. Nearly every number contains an article, not entirely scientific and practicable, but on a subject of interest, and, perhaps, of importance to medical men. Such a one appears this time by Dr. Dairner Waterson, on "Mesmer, and Perkins' Tractors," well written and entertaining. We might also mention to commend the selection on "Exophthalmic Goitre," by Dr. Ochsner.



THE CAMPAIGN AGAINST MICROBES. By Etienne Burnet, M.D., of the Pasteur Institute, head of the Vaccination Service of the City of Paris. Translated from the French by E. E. Ansten, F.Z.S. John Bale, Sons & Danillsson, Oxford House, London, W. 1909.

In a semi-popular way, the author has clearly told practically all we know about the fight against infectious diseases. A long chapter is devoted to cancer, with a capital summary of our present knowledge to date. Tuberculosis is also taken up very thoroughly. We can heartily recommend this monograph to anyone desiring to study the subject by means of a summary.

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IMMUNITY AND SPECIFIC THERAPY. By W. Deste Emery, M.D., B.S.C., Lond. Clinical pathologist to King's College Hospital, and pathologist to Children's Hospital, Paddington Green. With illustrations. London. H. K. Lewis, 136 Gower Street, W.C. 1909.

When every journal has articles which pre-suppose the knowledge of vaccines, it behooves the up-to-date practitioner to keep posted. These 400 pages have all the information he desires, besides having quite sufficient to teach him the technique should he desire to become proficient in that branch of the science. This work is original and not a translation, and so does not suffer for a lack of clearness.

## Selections.

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### Some Notes on Puerperal Infection.\* By KENNEDY C. McILWRAITH, M.B., Toronto.

Anyone who speaks or writes on the subject of puerperal infection finds himself at once confronted with the necessity for defining his terms. Without entering into the merits of the classifications in use, permit me to lay before you one which seems to me to possess some clinical merits.

There may be separated, then,

1. A group of cases in which there is more or less fever and other constitutional disturbance, accompanied by foul-smelling lochia. The germ is a saprophytic organism, and the whole affair clears up when the dead tissue upon which it thrives is removed. I propose to speak of this as *saprophytic toxemia*.

2. A group of cases in which the symptoms are often, but by no means always, much more severe. There is not, unless the infection be a mixed one, any putrid odor to the lochia. The germ is found to be one of the pyogenic organisms, *e.g.*, streptococcus or staphylococcus, but there is no evidence that it has penetrated beyond the original site of infection. This covers septic infection of the endometrium and wounds of the genital tract. I shall call this *septic toxemia*.

3. In the third group I should place those cases in which there is obvious germ invasion of the maternal organism. Here we have parametritis, peritonitis, pelvic abscess, phlebitis in veins extending from the uterus, etc. This I shall call *septic invasion*.

4. Lastly come the cases in which a pyogenic organism can be recovered from the blood during life, or is found to be growing in some secondary site, which it must necessarily have reached by the blood stream. This covers septic endocarditis or pericarditis, pyemia, lung invasion, etc. These cases are, of course, but instances of further invasion, yet the symptoms are so much more severe and the prognosis so much graver, that one seems warranted in placing them in a separate class under the name of *bacteriemia*.

Take we now the first two classes mentioned, saprophytic toxemia and septic toxemia. An overwhelming majority of all cases of puerperal infection commence in one or other of these ways. After a somewhat extended observation, I can say that I

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\*Read at Ontario Medical Association, June, 1909.

# The Canadian Practitioner and Review.

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No. 11

## Original Communications.

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### THE RELATION OF THE GENERAL HOSPITAL TO THE COMMUNITY.

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By R. W. BRUCE SMITH, M.D., INSPECTOR, TORONTO.

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The question of hospital extension has now become so general that before long every large Canadian town will have its own local institution for the care of the sick. It is only one hundred and fifty-seven years since the first hospital in America opened its doors. At that time only a few hospitals existed in the principal cities of England and continental Europe. Fifty years ago there were only eleven hospitals within the present boundaries of Canada; while to-day there are 151 institutions. Twenty-five years ago there were seven hospitals in the province of Ontario; to-day we have seventy-three general public hospitals with a total expenditure for maintenance during the past year of \$1,240,000. When we think of the growth in the work and note the progress that has been made and that largely through the sacrificing efforts of the medical profession, we may well consider the question of the relation which the hospital bears to the community and the improvements which may be worthy of earnest consideration and seem most likely to make the hospitals of Canada models in the National features that we possess.

The questions which naturally arise in establishing a hospital are as to what plan of construction is to be followed and what classes of patients are to be admitted. The time for this paper renders it impossible to dwell at any length on the importance of proper planning and construction. No branch of



architecture has shown more evidence of improvement than hospital building. This is in a large measure due to the knowledge gained during recent years of the possibility of having aseptic conditions and making hospital wards and their accessories by construction and care as free as possible from dust and rendering, as far as we are able, the air inside as pure at least as that which nature provides without. No hospital should be planned except as a unit to which additions in the future may be advantageously added.

#### NO OVERLAPPING.

Every community should be warned of the danger of establishing hospitals that might overlap those already established. This is one of the many reasons why in every large community there should be an independent board of citizens to act as a commission on Associated Charities, and to whom all schemes for the organization of additional hospitals and charities should be referred. If such a course had been followed in many of our Canadian cities, what a large amount of money might have been directed into channels where it might have been of greater service to the community.

#### POLICY FOR CANADA.

In regard to the different classes of patients who shall be admitted, Canadian hospitals must continue to be different from the policy followed in large British and European hospitals. There the large public hospitals are designed for the care of the sick poor alone. Social conditions fully justify following a different plan in this country. In our Canadian hospitals it is often felt that it is as great charity to provide accommodation for those able and willing to pay for their maintenance as it is to afford shelter for those in destitute circumstances. In this growing country those in comparatively comfortable circumstances are often without suitable home surroundings when overtaken by sickness or injury. In dealing with the management of all charities in Canada, we must discourage everything that might have a tendency to establish a pauper class in any Canadian community. We must seek to avoid the mistakes which older countries are now seeking, when too late, to correct. There is no room for a pauper class in Canada. Experience has proved that it is not only possible but profitable for many reasons to afford accommodation for private, semi-private, and public ward patients

in the same hospital. The private patient should contribute for his maintenance more than it costs, and this surplus is added to the total amount received from local philanthropy and municipal grants.

#### MEDICAL ATTENDANCE.

If we concede that our hospitals are to receive both paying and non-paying patients the community is interested in the settlement of the question who are to be the medical and surgical attendants on those for whom accommodation is provided. The answer to this question may, in my judgment, be briefly stated: 1. Private patients can have their own physician or surgeon attend them; 2. Semi-private patients who contribute for their maintenance a sum equal to the per capita cost of maintenance of the hospital for the past year have the same privilege; 3. Every public ward patient should be attended by the member of the staff assigned for the week or the month, as the case may be, to the particular ward to which the patient has been admitted. We sometimes hear a great deal of criticism of the rule which prevents every medical man having access to the public wards of a hospital, but those who are acquainted with hospital management know that to permit such a course is inimical to the patient and disastrous to the management and discipline of the hospital. It is along such lines and to bring about such conditions that the ward politician gloats over the prospect of posing as the poor man's friend. The public is fortunately not seriously led away with such buncombe. A regularly organized staff is essential to every city hospital and the poor when admitted to the public wards have the right to expect that all the skill of the staff, as well as all the facilities of the institution, will be exercised on his behalf. He can best obtain these by methodical arrangement of the ward service. Take a public ward of twenty-four beds and allow each patient to be followed thereto by the physician or surgeon of his own choice, the usual visiting hours being observed, imagine the confusion, out of which provoking errors would be sure to arise and picture to yourself the difficulty of providing a nursing staff that would be adequate for such conditions. The few who have advocated the expediency of establishing city hospitals where every medical man might follow his patients and treat them in public wards have, I fear, not given the matter the consideration which such a radical change should have.

## EDUCATIONAL FUNCTION OF A HOSPITAL.

A great hospital must play an important part in the philanthropic activities of the communities. The relief of individual suffering and the cure of individual cases must not, however, be considered the only reasons for such a hospital's existence. That would indeed be a narrow view to take. Great as its service to the community is in those particulars it is only a small part of the service which it really renders. It is as an educational institution, an institution through which alone doctors and nurses can be trained, and through which alone medical science can be advanced that a large hospital under enlightened management has its chief claim upon the public. Dr. Osler has well said "the whole art of medicine is in observation, but to educate the eye to see, the ear to hear, and the finger to feel, takes time and to start a man in the right direction is all that we can do."

At one time the instruction in the lecture room of the medical school was followed by perfunctory and haphazard walks through a hospital ward. Scores of students sauntered along between rows of beds and listened at an almost out-of-earshot distance. A student rarely touched a patient, seldom listened to the physical signs of pulmonary or cardiac disease, and never really studied a ward case. The surgical operations in the amphitheatre could only be vaguely seen. Thanks to the impulse given by the dominating idea of scientific investigation, all this is now rapidly changing. Now in small groups, or individually, students are permitted to work out some phase of a specific disease. The student sees the patient, touches the patient, comes in personal contact with the disease of the patient and begins to get a grip on its meaning.

In such a hospital will be assembled not only the sick and the maimed, who will not merely be healed themselves, but by whose healing that is learned which will heal others in generations to come; the physicians and the nurses who are there both to heal and to learn; the laboratories and surgical appliances with which they are to put their learning to the highest use. Such a combination in a great hospital will prevent more disease in generations to come than it actually cures in the generation with which it is immediately and personally dealing. The educational function of such a hospital should receive the same prominence which is given to its actual relief of human suffering. Then again the well equipped hospital not only relieves human suffering, educates doctors and trains nurses, but sets standards for the countless many who for the



first time perhaps in their lives have the chance to see cleanliness, the importance of details and the beauty of a well ordered, self-contained life. The hospital indeed now plays such an important part in the world's programme that the erection of every well equipped modern hospital is cheering evidence of a determination to share in this great forward movement.

#### RELATIONS OF MUNICIPALITY TO HOSPITAL.

When a town or city contemplates the establishment of a hospital my first advice is to make sure that class partisan or sectional feeling of every kind is kept separate and complete. Ward politics are decidedly incompatible with hospital management. The contrast between municipal hospitals and those institutions which are controlled and directed by local boards is most marked. Fortunately in this country we have not the experience which has been so expensive in some of the American cities during the past year. There are only two or three what might be termed municipal hospitals in Ontario. Where these are located there is an absence of the hospital spirit among the people of the community. Local philanthropy is never exerted for the benefit of the hospital. It would, indeed, be a surprise for such a hospital to receive a contribution or become the object of a bequest. Not only is the hospital deprived of the contributions and sympathy of the people of the community, but the greater privilege of giving is kept from those who would otherwise find comfort and delight in practical benevolence. There are one or two places in Ontario where the people would as soon think of making a donation to the city hall or street railway as to the local hospital under municipal control and management. There is no room in Canada for more hospitals solely under municipal control. The ideal plan is, as so largely prevails in this province, local management under the direction of those who are actuated by a spirit of philanthropy coupled with civic pride, and are willing to administer the important trust committed to their care. These boards, however, deserve and must receive liberal municipal support. The Municipal Act of Ontario gives power to vote an annual grant each year for hospital support. Every city, town, village, township, and county council can exercise that power. Some of the municipalities make liberal grants towards the support of the hospitals in their midst. Unfortunately, there are many that will not take advantage of the power they possess to vote hospital grants. Some municipi-

palities decline to contribute anything towards paying for the hospital care and treatment their indigent patients receive. The time has come when municipalities should be awakened to a sense of the duty they owe to the local hospitals who care for their sick poor. A statutory amendment might with great advantage be introduced giving hospital boards the power to collect from a municipality the actual cost of maintenance of a patient who is unable to pay for what the hospital has afforded him during his illness. The Municipal Act of Ontario now gives the power for the municipality to make the grant; why not give hospitals the power to collect what the municipality owes for the care of its indigents?

In the province of Ontario government aid is voted each year to hospitals on the following terms:

1. A provincial grant is made for all patients in a hospital during the first ten years of its existence at the rate of twenty cents per day, irrespective of what sum is contributed by the patients themselves.

2. After a hospital has been in existence for ten years the grant is paid only for patients for whose maintenance \$4.90 per week or less is contributed.

3. In all cases the limit is 120 days, and if patients remain in the hospital longer than that period the refuge rate of seven cents per day is allowed.

4. Children over one year and under twelve years are allowed for at the rate of seven cents per day.

5. No allowance is made for infants under one year of age.

Each hospital is visited each year and a report prepared showing all the conditions in which the hospital is found. A copy of the report of the inspection is sent to the hospital visited and another copy sent to the provincial secretary. Each hospital in addition makes a monthly return to the inspector, giving the names of all patients admitted, discharged and died during the month. In this way a record is kept at the department of the work each hospital is doing. At the close of the year a financial statement is made by each hospital showing in detail the financial receipts and expenditures. These returns are carefully completed at the department, so that a knowledge is obtained of all details of expenditures and, if a hospital is extravagantly managed, it is easily detected. I may be pardoned for expressing the opinion that government supervision and inspection of hospitals has great advantages. The average rate for maintenance of hospitals of Ontario for

the past year was \$1.21 per day, and, considering the work being done, the financial records are certainly satisfactory.

I am sometimes asked what I consider the model plan for a young and growing city desirous of planning for a hospital that is to serve future generations. My answer, founded on observation, is, in my judgment, the model plan to have a large section carefully selected outside and away from the noise and dust of the city, and on this large area lay out the hospital which will care for and receive all classes and diseases in distinctly separate pavilions and provide with all the facilities of outdoor treatment when practicable. With such a scheme, one or more small reception hospitals in the centre of the city would meet all the requirements for emergency cases. This hospital village would have a leading feature, the convalescent home, to which the patient could be transferred as soon as convalescence became first established. This leads me to refer to the fact that at present there is not sufficient attention paid to providing large convalescent homes. The poor man has to be kept in our hospitals long after his recovery has commenced—too sick to be sent home, and really not sick enough to be kept in a bed which might with advantage be taken by an acute case. On the grounds of economy alone, it would be particularly advantageous to every large hospital to have a convalescent home to which its recovering patients might be transferred.



## ABSTRACTS OF PAPERS READ AT THE BUDAPEST INTERNATIONAL MEDICAL CONGRESS.

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THE DIAGNOSIS OF LARYNGEAL CANCER. By Sir Felix Semon,  
M.D., London.

The author related, and graphically illustrated, those cases of malignant disease from his own practice, in which exceptional diagnostic difficulties were encountered, and in a number of which diagnostic mistakes were made. They amount to 13 in a total number of 246 cases of malignant disease seen in 33 years' practice, and the author, after faithfully recording the salient features of each of them, exhorted in conclusion his younger *confrères* not to consider the early diagnosis of malignant disease of the larynx as exceedingly difficult, but to keep in mind such unusual features as are present in the following series of cases now brought forward:

1. Malignant disease of the larynx, appearing first in the form of a curious tumefaction of the left vocal cord, which remained stationary for nearly two years before showing its true nature.
2. Chronic infective inflammation, simulating malignant disease of the larynx.
3. Extravasation of blood into the right vocal cord and below it, simulating malignant disease of the larynx.
4. Laryngeal tuberculosis in which the laryngoscopic appearances left the diagnosis between malignant disease and tuberculosis quite undecided.
5. Laryngeal tuberculosis simulating malignant disease in an old gentleman, aet. 70.
6. Tuberculous tumor, simulating malignant disease, in the anterior commissure of the vocal cords.
7. Leucoma of a vocal cord, simulating malignant disease of the larynx.
8. Epithelioma of the left ventricle of Morgagni, at first mistaken for papilloma.
9. Epithelioma originating in the form of an angioma.
10. Papilloma, occupying the whole posterior part of the right vocal cord and the inner aspect of the right arytenoid cartilage in a gentleman, aet. 60, mistaken for malignant disease of the larynx.
11. Epithelioma of the larynx appearing in the form of snow-white, sharply pointed meadow.
12. Granuloma originating in the scar due to removal of an epitheliomatous tumor of the right vocal cord.
13. Inflamed papilloma in a gentleman, aet. 60, closely simulating the appearance of an epithelioma of the larynx.

## CHRONIC FORMS OF PANCREATITIS. By A. W. Mayo Robson, F.R.C.S.

Mr. Mayo Robson drew attention to chronic pancreatitis as a clinical entity apart from gallstone trouble, and he also described how frequently inflammatory enlargement of the pancreas accompanies cholelithiasis, especially if the concretions are in the common duct. He pointed out that chronic pancreatitis may persist long after the original cause has disappeared, and may simulate cancer of the head of the pancreas, and so terminate fatally under the impression that it is incurable, when, as a matter of fact, suitable surgical treatment is capable of curing the condition. His observations were based on a large series of cases on which he had operated, the first operation having been performed by him in June, 1890 (this patient being in good health fourteen years later); a second in 1891 and a third in 1892. In the latter case death occurred two days after operation, and a microscopic examination of the pancreas showed it to be interstitial pancreatitis. In 1895 he operated on two cases which were in good health several years later, and in 1896 on another case which was well some time subsequently. In this year (1896) Professor Riedel published a paper on inflammatory enlargement of the head of the pancreas, in which he described two cases of pancreatitis (the first of which was operated on in 1893) associated with malignant disease, and another paper on cases caused by gallstones. Mr. Mayo Robson described the symptoms, the pathological condition, the causes and the treatment of chronic pancreatitis, and showed that the anatomical variations in the relations of the common bile duct to the pancreas and in the termination of the ducts had an important bearing on the etiology of the condition. He urged the importance of preventive treatment, such as the removal of gallstones before they had produced complications, and the treatment of duodenal ulceration by gastro-enterostomy. If after a fair trial of general treatment, not too long continued, the symptoms persist, and the signs of failure in pancreatic digestion and metabolism were manifesting themselves, the question of surgical treatment, he said, ought to be seriously considered, especially when the disease is associated with jaundice. He said that rational treatment should aim at the cause, whether that was gallstones, pancreatic calculi, duodenal catarrh, duodenal ulcer, alcoholism or syphilis. Even in the absence of obvious removable causes he advocated efficient drainage of the infected bile and pancreatic ducts, either by cholecystotomy or cholecystenterostomy, preferably the latter. His experience has taught him that if the cause can be removed

at an early stage an absolute cure is possible; and though complete restoration of the damaged gland, in more advanced cases, cannot always be promised, yet an arrest of the morbid process may be looked for and the remaining portion of the pancreas will be able to carry on the metabolic, even if incompletely, the digestive functions of the gland.

ARTERIO-SCLEROSIS, INCLUDING ITS CARDIAC FORM. By Dr. H. Huchard, Paris.

The chief points of Dr. Huchard's argument were the following. There exists great confusion amongst pathologists as to the nature and process of arterio-sclerosis, more than twenty different accounts of it having been advanced, so that it is impossible to give an exact and rational definition of the disorder from the pathological side. Neither can pure experiment settle the question, but the clinical evolution of arterio-sclerosis affords the method of distinguishing between that disease and atheroma. Atheroma is really a senile affection, coming on in persons of from 60 to 80 years of age, and it is entirely a vascular change. Arterio-sclerosis, on the other hand, attacks persons between 30 and 60 years of age and is so largely a visceral complaint that its best name is arterio-visceral sclerosis. Gull's and Sutton's conception of an "arterio-capillary fibrosis" is incomplete. There are some arterio-scleroses at their outset typically aortic and which may be called myo-valvular. In spite of the subsequent involvement of the smaller vessels and the arterioles, from the clinical point of view these processes at the first and during the greater part of their course affect the aorta and the valvular parts of the heart. From the triple viewpoint of the pathologist, the clinician, and the therapist, the distinction between such endocardial valvular "cardiopathies" and the endarterial "cardiopathies" is of considerable importance. The principal causes of the latter condition are gout and "uricemia," lead poisoning, syphilis, faulty diet, tobacco, mental strain, and overwork. There are four stages recognized clinically in the evolution of arterio-sclerosis: (1) arterial presclerosis; (2) the cardio-arterial stage; (3) the mitro-arterial stage; and (4) the final stage of cardiac failure. The symptoms fall under the three heads toxic (the predominant group), cardio-arterial, and renal, and each requires a special line of treatment. The beginning, the course, and the climax of the arterial cardiopathies are comprised in the word intoxication, having for its chief symptom dyspnea. There is good clinical evidence of the reality of the condition called presclerosis in which there are either no vascular lesions or those



lesions are quite latent. Careful distinction must be made between a pathological lesion and a clinical disease. Simple atheroma may remain for a long time nothing more than an anatomical change. In cardio-sclerosis, on the other hand, the subjective symptoms predominate over the physical signs which may indeed be absent, as in mitral contraction of sclerotic origin. In mitral regurgitation of similar origin the patient may be considered "a mitral case" as far as his murmur goes, but he is really "an arterial or aortic case." From the outset the renal factor is of great importance in determining the retention of the toxic substances and the increase in the arterial tension. Renal insufficiency is an early and constant symptom in arterial cardiopathies even if there be no albuminuria, and this fact accounts for the importance of renal treatment to eliminate the toxins during the whole course of the disease. Clinically, cardio-sclerosis can take its beginnings in the kidney, the heart, or some other organ, but there is no such thing as arterio-sclerosis without both arterial and renal lesions. That at least is the best definition of the disease, and it allows of the differentiation of a number of disorders which have for long been wrongly regarded as always due to arterio-sclerosis, as, for instance, certain affections of the eyes, ears, brain (lacunar cerebral sclerosis, cerebral hemorrhages, etc.), and the senile changes in the heart. It may happen that cardiac lesions of rheumatic origin become complicated by arterio-sclerotic changes between the ages of 30 and 50 years and a fresh train of symptoms may ensue. Asthma and emphysema only lead to stoppage of the heart through the arterial lesions which occur with them, but asystole of true gastric origin is extremely rare. Discussing the treatment, Dr. Huchard said that the therapeutic indications were different in the four stages of the disorder, but dietetic regimen with measures directed to the renal efficiency are always the basis of sound treatment. In a disease which is above all things an intoxication, the abuse of drugs, especially of the iodides and digitalis, is to be carefully avoided, and also the abuse of so-called anti-sclerotic serums, high frequency currents, and climatic and certain mineral water "cures." Lastly, Dr. Huchard mentioned a form of arterio-sclerosis with arterial hypotension primarily of intestinal origin and associated with portal congestion.

**RAPID DILATATION OF THE CERVIX.** By Dr. G. Winter, Koenigsberg.

He maintained that the ideal method of dilating the cervix must be one which involved no danger of excessive bleeding. of

unavoidable lacerations of the cervix, or of the risk of infection, which would allow of the passage of a full-term child and permit of a complete restoration of the functions of the cervix. Two methods were available—stretching or cutting of the tissues. The former could be carried out manually, by means of a hydrostatic dilator, by a dilator such as that of Bossi, or by the body of the child. Manual dilatation possessed the advantage of requiring no special apparatus, but there was a danger of slight tears of the cervix and of septic infection. The use of a hydrostatic dilator secured complete dilatation which could be carried out aseptically; it possessed the disadvantage, however, of the likelihood of reclosure of the canal from elastic recoil. Bossi's dilator was a certain method and without danger when the cervix was unfolded, and entailed but slight danger of infection, but the risk of bad tears was considerable, and interference with the third stage of labor was not uncommon. Dilatation by means of the child's body after version was a simple and certain method, but usually entailed the death of the child. Of the cutting operations, superficial incisions were of limited practicability. Vaginal Cesarean section was the easiest of all the methods of dilatation. Dührssen's method was the best; with this procedure injuries of the neighboring structures were not frequent and the maternal mortality was about 1 per cent. The child was usually delivered alive. Vaginal Cesarean section when practised early in eclampsia gave excellent results; 20 cases were recorded, in all of which the fits at once ceased after the performance of the operation. In accidental hemorrhage, if immediate delivery was necessary, vaginal Cesarean section gave good results. In placenta previa all methods of rapid dilatation were best avoided because of the risk of rupture of the cervix. In cases of septic infection also any method likely to produce tears of the cervix should not be practised. In cases, where the death of the child was threatened only those operations should be performed which entailed no risk to the life of the mother. Of general conditions, eclampsia, heart failure, impending suffocation from acute lung affections, and at times tumors of the genitalia, stenosis of the cervix, and impending death of the mother, were all indications for the performance of vaginal Cesarean section, which he considered on the whole by far the best of the various methods available for rapid dilatation of the cervix, and for which eclampsia was the strongest and most important indication.

THE DIAGNOSIS AND TREATMENT OF TUMORS WITHIN THE SPINAL CANAL. By Professor H. Oppenheim, Berlin.

1. The differential diagnosis between tumors springing from the meninges and from the spinal column itself can scarcely be said to be yet established. 2. For the diagnosis between intramedullary and extramedullary new growths important but not absolutely trustworthy symptoms are existent. Of these the chief is the constancy of the upper level of the lesion. Nevertheless, the collection of cerebro-spinal fluid above the tumor and the frequently accompanying meningitis serosa circumscripta may cause this level apparently to vary and thereby reduce its diagnostic value. For other reasons also the upper level may seem higher than it really is. Criteria for distinguishing between meningeal tumors and spinal gliosis are not trustworthy. 3. Serous spinal meningitis presents more of the characteristics of spinal tumors than any other extramedullary disease. The author thinks that the aids to differential diagnosis mentioned by Sir Victor Horsley cannot be depended on. 4. Spinal medullary "pseudo-tumors" are to be considered with reserve. 5. The segmental diagnosis of spinal tumors may be complicated by the existence of secondary serous or fibrous meningitis. The symptoms of a tumor may be referable to a level below the site of the tumor. Therapeutic results are distinctly encouraging. Reference was made to 25 cases of operation, with 13 cures.

THE TREATMENT OF LUPUS ERYTHEMATOSUS. By Sir Malcolm A. Morris, London.

The disease appeared to him to be essentially a chronic inflammation of the skin, local in origin, and depending on a condition of the circulation which makes the integument prone to vaso-motor disturbance. This may cause a predisposition to toxic infection, but neither the fact of such infection nor its nature has been positively demonstrated. Each case must be dealt with according to its peculiarities. The treatment should be constitutional and local. Under the former head must be included careful regulation of the diet, so that the intestine may not be loaded with materials that may form a favorable soil for infection. Anything, like coffee and tea, which causes flushing of the face, is contra-indicated. Quinine is often useful. Locally, in the hyperemic stage, he prescribed cooling lotions and ointments of subacetate of lead. Ichthyol in the form of a lotion or an



ointment he also found to be among the most useful of local remedies. In chronic cases the constant application of a strong solution of ichthyol is the best remedy, but iodine liniment is also valuable. In severe conditions linear scarification or light touches of the thermo-cautery he found often to give good results. In subacute cases he has sometimes used high-frequency currents and in chronic cases the Finsen light and the X rays with success. These agents are particularly useful in the later stages when there is thickening of the integument. Radium may be applied to limited areas for the same purpose.

THE ORIGIN OF SEX. By Professor Nussbaum, Bonn.

Professor Nussbaum, referring to the various experiments which have been made on the subject, emphasized the fact that what might be possible with plants and the lower forms of animal life could not be applied to the higher forms. The voluntary production of sex by means of external agencies has been conclusively proved for a large number of species of inferior organization. In vertebrates and in the case of some plants such agencies are not available. He referred to the more recent theories of Noll and Correns and also of von Hertwig, and remarked that several objections have been raised against attempting to apply them in all cases. The older statements as to the voluntary production of sex by bees and butterflies have been disproved. More worthy of notice are the observations of Wilson, Morgan, Meve and others on the differential cultivation of seminal threads, so that by fertilization of the egg variety of sex could be produced. With reference to the experiments of Oudemans, Kellog, and Meisenheimer, Professor Nussbaum gave the following explanation. In butterflies the abdomen of the insect as well as the sexual glands are not the same in the two sexes, the difference finding expression in the number of chromosomes. Internal influences determine the sex of the algae and moulds, but in infusoria, in the lower forms of crab, and also in rotatoria (according to the recent researches of Punnett and Whitney) such is not the case. Professor Nussbaum further said that the material which has come under his notice strengthens the opinion (also expressed by Maupas) that temperature exercises some influence, but his researches also indirectly suggest that the true cause of the production of males is diminished nourishment of a colony of parthenogenetic females.

**POLYCYTHEMIA.** By Dr. H. Senator, Berlin.

He said that an increase in the number of red blood cells can be either relative or absolute and can occur under both physiological and pathological circumstances. Physiological polycythemia is observed after the loss of much fluid from the body, after the ingestion of food rich in albumen, in convalescence from anemic disorders, in newly born infants, after residence in a strange climate, and perhaps in hibernating animals during the winter months. Pathological polycythemia is found when the blood becomes thickened during disease, in various forms of cyanosis, in certain intoxications and infections in which hemolysis takes place, and occasionally in diseases in which unknown changes in the blood occur, and in many affections of the nervous system. In all these pathological circumstances, in addition to the relative polycythemia due to a thickening of the blood, the diminution of the tension of oxygen in the blood must be considered as a casual factor, whereby the hematopoietic organs are stimulated to greater activity. These conditions must not be confused with polycythemia megalosplenica described by Vaquez, and polycythemia hypertonica described by Geisböck. In both of these a primary affection of the bone marrow must be taken to be the cause of the polycythemia. Geisböck's disease, of which very few examples have been recorded, may be distinguished from that of Vaquez by the fact that in the former there is a high blood pressure together with hypertrophy of the heart, and enlargement of the spleen cannot be demonstrated. The changes in the blood, which have been more especially studied in Vaquez's disease, consist in an increase in the viscosity of the blood and a higher specific gravity. The resistance of the erythrocytes does not appear to differ from the normal, whilst the capacity for the absorption of oxygen lies within the usual limits, or is increased. The respiratory exchange in many cases is found to be high. With regard to treatment, a vegetable diet and bleeding give favorable results. Many cases of primary polycythemia cannot be placed under either of these categories.

**OBESITY.** By Professor Carl von Noorden, Vienna.

He said that he should only consider the matter from the point of view of etiology. In the most common forms the condition is due either to over-feeding or lack of exercise; frequently these two causes are combined. It is quite easy to understand why excessive corpulence follows these two factors. It is much more difficult to explain those cases in which, although the proper amount of food is taken and sufficient exercise is indulged

in, obesity develops. This has been termed constitutional obesity. After discussions which have been prolonged for years, and after careful investigations, the conclusion has now been arrived at that in such cases the oxidation power of the organism has become weakened. This is a factor which bears a direct relationship with the thyroid gland. Temporary changes in that gland raise or depress the power of oxidation. Professor von Noorden on these grounds designated the various forms of constitutional obesity "thyreogenic obesity" and proposed the following classification: (a) primary thyreogenic obesity, dependent upon actual changes in the thyroid, such as atrophy, degeneration, functional weakness, and so on; (b) secondary thyreogenic obesity, that is to say, functional anomalies of the thyroid dependent upon the action of other organs, such as the pancreas, hypophysis cerebri, suprarenals, thymus, pineal gland, and perhaps other organs also, so-called chemical correlations by means of internal secretions. These questions have not only a theoretical interest, but possess important bearings on therapeutics, as anomalies of metabolism known under the term of obesity can only be treated rightly when in any given instance the origin of these anomalies has been correctly recognized.

THE TREATMENT OF DIFFUSE FREE PROGRESSIVE PERITONITIS. By  
Dr. Arpad G. Gerster, New York.

The basis of this report is formed by 609 cases of the malady, observed at Mount Sinai Hospital during about ten years. Of these, 461 were caused by the appendix (out of a total of 3,144 cases of appendicitis) and 148 were due to injuries and affections of other viscera. The author points out the difficulties that surround the making of a precise diagnosis and prognosis in peritonitis. He further indicates the uncertainties dependent upon these difficulties in establishing a uniform and reliable nomenclature of the disease, to which again may be ascribed the small value to be placed on statistics. In accepting the diagnosis of free progressive peritonitis, very strict criteria must be insisted on; and, even with these, statistics have only a relative value. Every case of appendicitis, and, *a fortiori*, every case of peritonitis, in whatever stage of the malady it may present itself to the surgeon, ought to be operated on without delay, excepting cases imminently and palpably moribund. The arguments by which the advice is supported not to operate upon "intermediate" cases of appendicitis on account of the high mortality are fallacious. A tabulated *résumé* of the results of operative



treatment in 461 cases of diffuse free progressive peritonitis, due to appendicitis, shows a steady decline of mortality from 79 per cent. in 1899 to 14 per cent. in 1908. This improvement is ascribed to the abandonment of heroic and incisive measures in cleansing of pus and in drainage of the peritoneum, which were in vogue in 1899, and the adoption of early, simple, rapid and less exhausting operative procedures, complemented by Fowler's posture and Murphy's proctoclysis. Of complications, the most common, observed in 9.3 per cent., was that of secondary intra-peritoneal abscess. This the author regards as a residual manifestation of a primarily general process. Mechanical ileus, rather frequent (15.8 per cent.) in 1899, has become much rarer (5.4 per cent.) since the abandoning of the use of extensive gauze packings. The author's procedure is as follows: (1) Preliminary lavage of the stomach; (2) anesthesia by nitrous oxide gas followed by ether; (3) rapid exposure of primary focus of infection; (4) stoppage of visceral leak by suture or tamponade; (5) gentleness and rapidity of procedure, avoidance of friction by wiping, etc.; (6) no irrigation; (7) soft rubber tube drainage of right iliac fossa and, if necessary, of Douglas' pouch; (8) closure of external wound by three layers of suture; (9) for paralytic ileus repeated gastric lavage, low and high enemata, or systematic rectal lavage, enterotomy by stab done in intractable cases only; (10) rational administration of opiates; (11) withholding of all ingesta while vomiting is present; (12) Murphy's proctoclysis; (13) Fowler's position; (14) early incision and drainage of secondary abscesses; (15) laxatives, calomel and salts, to be given only after stoppage of vomiting; and (16) tampons used for walling off necrosed areas not to be disturbed without necessity till they become detached of themselves.

#### CYCLIC VOMITING IN CHILDREN. By Dr. J. Comby, Paris.

Periodic or cyclic vomiting occurs in attacks lasting two or more days with variable intervals; it is met with between the ages of two and six or eight years. It is seen a little more frequently in boys than in girls. Sometimes several members of the same family are attacked in turn. A neuro-arthritis heredity is present in many cases. He had noticed (as pathological conditions preceding the vomiting) sore throat, adenoids, dyspepsia, a tendency to vomit, entero-colitis, and appendicitis. It has been ascribed to the liver and fatty acid poisoning, acidosis and acetone-mia. If, in fatal cases, a fatty condition of the liver has been found it is very evident that it has not been

primary but secondary to digestive troubles. It is necessary to look for lesions of the appendix. The symptoms consist of uncontrollable vomiting with rapid wasting, which suggests meningitis, peritonitis, internal strangulation, or appendicitis. Constipation, fever, and acetonuria are frequent. The prognosis is generally favorable, but at least ten fatal cases have been published. It is necessary to think of appendicitis which is often the cause of periodical attacks of vomiting. After having eliminated indigestion, the ingestion of some poisonous substance, migraine, intestinal obstruction, and peritonitis, the appendix should be examined by an operation. Medical treatment consists of the administration of alkalis, a vegetarian diet, hydrotherapy, and saline injection. Surgical treatment is comprised in appendicectomy in an interval. In 50 per cent. of his own cases he has found chronic appendicitis.

THE PATHOLOGY OF HEREDITARY DISEASES OF THE NERVOUS SYSTEM. By Dr. B. Sachs, New York.

The term "family diseases" is, he said, preferable to "hereditary diseases," since very few diseases are conveyed directly from parent to child, whereas the morbid tendency exists in one or both parents which leads to the development of a family disease. There is a very marked difference between the cerebral and the spinal groups; the family diseases of cerebral origin are due to changes in the highest nerve elements, viz., the ganglion cells; the spinal affections are due largely to disease of, or maldevelopment of, one or more systems of white fibres. The one exception to this group is the spinal form of progressive muscular atrophy, and that is only rarely inherited. Family diseases of cerebral origin include hereditary diplegia, hereditary optic nerve atrophy, and amaurotic family idiocy, the infantile form (Tay-Sachs) and the juvenile form (Spielmayer and Vogt). In both types of the latter disease the ganglion cells of the entire nervous system exhibit a marked swelling of the cell body and of the dendrites, while the axones remain intact. The active cytological factor is an abnormal swelling of the hyaloplasm and not a degeneration of the fibrillae. The occurrence of the disease among Hebrews suggests that in the members of a race whose nervous system is prone to deterioration children are born with the highest nerve cells so defective that they are entirely unequal to perform the ordinary vital functions, and at a very early period undergo a typical disintegration. It is not the function that unfits them, but they are *ab ovo* defective.

THE FUNCTION OF THE FRONTAL LOBES. By Professor Bianchi, Naples.

1. For experimental work on the frontal lobes the only satisfactory animal is the ape, since in it these structures are well developed and their architectonic structure corresponds to that of the human cerebrum. The psychical activities of each ape must be carefully studied both before and after operation. 2. In front of the motor area (Rolandic) is an electrically excitable zone extending from the mesial margin of the hemisphere over the outer aspect to where that surface becomes continuous with the orbital surface. It is an integral part of the frontal lobe and corresponds to the prefrontal fissure. From this area the muscles of the neck, eyes, and ears can be stimulated. 3. The extirpation of the frontal lobes never produces permanent motor or sensory defects. Visual defects, similarly, are fugitive. 4. The whole intellectual life of the ape is altered after removal of the frontal lobes. Perception, attention, inhibition, and in particular memory and association, are enfeebled. The animal has no longer the power of profiting by experience. Sometimes stereotyped movements and ties are observed. 5. As a result its psychical tone is lowered: it lacks initiative, courage, and spirit.

RECENT PROGRESS IN THE CLINICAL STUDY OF THE EVOLUTION OF SYPHILIS. By M. H. Hallopeau, Paris.

He said that when the chancre manifests an intense reaction, and the morbid products formed by it are of great virulence, it is a sign of an over-activity of the treponema. The germs given off by the chancre may take different routes. (a) They may go by the lymphatics, which transmit them with or without lymphangitis to the neighboring lymphatic glands. (b) They may go by the capillaries. (c) They may enter the neighboring tissues, where they spread. These last show a higher degree of virulence than those which later come from the lymphatic glands, for the glands possess a great power of attenuating the micro-organisms. Amongst the ultra-virulent manifestations must be put most of the secondary manifestations of the vulva, of the prepuce, and of the parts around the anus. When the lymphatics and the lymphatic glands do not transmit the micro-organisms, infection can only take place by the blood-stream, and then the roseola does not appear, and, therefore, it may be said that the roseola is associated with the early affection of the lymphatic glands. The generalized infection only takes place at the beginning of the secondary stage and later the lesions are spread



exclusively by intra- and extra-inoculation. In grouped syphilides the initial lesion often shows signs of a virulence greater than that of the lesions derived from it. On the other hand, extensive cicatricial syphilides may continue to spread with increasing outbursts, so it is clear that the resistance of the tissues can be increased or diminished. As the disease advances in evolution it gives rise to modifications in the intensity and the mode of action of the treponema, and, consequently, in the nature of the toxins produced. The pathological action of the treponema is entirely due to the soluble substances to which it gives rise. In different subjects the treponema is prone to attack certain tissues. There are also affections liable to be produced under the influence of syphilis which later progress spontaneously, these being the so-called syphilitic deuteropathies.

USE OF ANESTHETICS IN MIDWIFERY AND GYNECOLOGY. By Dr. Krönig, Freiburg in Breisgau.

He proposed three points for discussion—namely, (1) the utility of lumbar anesthesia in midwifery and gynecology; (2) the utility of anesthetic combinations (*Mischnarkosis*): and (3) the utility of scopolamin for producing drowsiness (*Dämmer-schlaf*) during labor. With regard to the first point, he said that attention to every practical detail, even the smallest, was of more importance in lumbar anesthesia than in any other method of producing insensibility to pain. As Mr. Barker had already pointed out, the specific gravity of the solution injected was of quite exceptional importance. The best solutions for use in laparotomy had, at a temperature of 38° C., a specific gravity under 0.999, which was the specific gravity of the cerebro-spinal fluid. Dr. Krönig supplied particulars of a total of 1,700 cases of anesthesia produced by stovain. Since the dose of stovain has been reduced to seven centigrammes as a maximum there has been no death during anesthesia in a series of 1,400 consecutive cases, neither has any embarrassment of the respiration been observed. Although certain after-effects, especially headache, occurred in 38 per cent. of the cases, intraspinal anesthesia produced but little effect of an unfavorable kind on the heart and lungs, a circumstance which was so important for the safety of the patient that Dr. Krönig preferred intraspinal anesthesia to inhalation anesthesia in severe and long operations, and especially in laparotomy. In all minor operations, however, the use of inhalation anesthesia ought to be continued. With regard to the second point—the utility of anesthetic combinations—he said

that a combination of chloroform and ether ought in every instance to replace pure chloroform or pure ether as an anesthetic, and the combination of anesthetics might be further extended by giving an injection of scopolamin and morphine before the inhalation. It was only through the use of combinations of anesthetics becoming general that the dangers of anesthesia by inhalation could be reduced to a minimum. With respect to the method of administering an anesthetic by inhalation, preference ought to be given to those forms of apparatus which gave the best quantitative admixture of the anesthetic in the air which the patient respired. With regard to the third point—the utility of scopolamin for producing drowsiness during labor—he said that in women who were sensitive or of nervous temperament or neurasthenic a tedious and painful labor often brought about long-continued and not unimportant states of nervous exhaustion. In those cases it was desirable to reduce the woman's suffering to a minimum by a method which was not injurious to either her or the child. Since Steirbüchel had recommended the scopolamin-morphine treatment for this purpose Dr. Gauss has been working in Dr. Krönig's clinic on specially introduced systems of testing the state of consciousness at any given time, and has greatly improved the methods for the production of the drowsiness in question. On the basis of a clinical material amounting at the present time to 2,000 deliveries it might be stated that the production of drowsiness by scopolamin was free from danger to both mother and child, and accomplished the object in view by either completely abolishing or else reducing to a minimum the pains of parturition.

FIBROIDS OF THE UTERUS AND PREGNANCY. By Prof. Samuel Pozzi, Paris.

He pointed out that under the influence of pregnancy fibroid tumors of the uterus may undergo an important series of modifications as regards their size and position. It is generally taught that fibroids become enlarged during pregnancy, but this is very variable, the change in size being at times slight, at other times sufficient to cause pressure symptoms. In some cases, as he has pointed out specially, these tumors undergo during pregnancy a very rapid and remarkable increase in size. The enlargement of a fibroid tumor concurrently with pregnancy is usually due to edematous infiltration, but it may be caused by actual hypertrophy of the tumor elements, which produces a more or less marked softening of the whole tumor. In other cases a process of aseptic necrosis takes place, but more often cystic degeneration

occurs, while rarely suppuration and gangrene of the tumor are met with. During pregnancy there is a general tendency for pelvic fibroids to rise up out of the pelvis, but at times this does not occur and in such cases obstruction to delivery is very likely to be present. With regard to the influence of fibroid tumors upon pregnancy, in many cases they do not in any way interfere with the normal course of the gestation. Occasionally, however, accidents of considerable gravity occur. Among these are incarceration of the retroverted gravid uterus, especially likely to take place at the fourth month, and very frequent with an intraligamentous fibroid. When the tumor either by its weight or its position exercises pressure on the walls of the bony pelvis pressure symptoms are liable to supervene. These may take the form of pain due to compression of the nerves, dysuria, retention of urine, albuminuria, pyelonephritis, constipation, or distension from pressure on the intestines. In some cases attacks of pelvic peritonitis are set up and may require immediate operative procedures being undertaken. In some very rare instances torsion of the pedicle, or even of the whole uterus, may be met with, with acute symptoms simulating those seen in cases of torsion of the pedicle of an ovarian cyst. Further effects of the fibroid on the pregnancy are noted in the occasional occurrence of antepartum hemorrhage, abortion, death of the fetus, and its retention in utero. The diagnosis of a fibroid complicating pregnancy may be simple or very difficult. Three conditions may arise: the medical attendant may be aware that his patient has a fibroid and may find evidence of the occurrence of pregnancy, or he may know nothing of the patient and may find a fibroid with symptoms and physical signs indicating the presence of a pregnancy as well. In other cases, again, the signs of a pregnancy may be evident, but there may be others less certain pointing to the presence of a fibroid. In such a case the diagnosis may present serious difficulties, and the case is very likely to be regarded as one of extra-uterine gestation. In the great majority of patients the pregnancy runs its normal course, even when a fibroid is present and no interference of any kind is required. Any operative interference is only permissible during pregnancy when some grave complication supervenes, such as marked pressure symptoms, vomiting, severe pain, or peritonitis. In any case, even when it is certain that the presence of the fibroid will not permit of a natural confinement, it is necessary to await the arrival of full term and then to practise Cesarean section. In cases where the obstetrician is compelled to intervene in the course of the pregnancy the best treatment is to perform, whenever pos-



sible, myomectomy, either vaginal or abdominal. The induction of abortion or of premature labor is alike contra-indicated, and when myomectomy is not possible then the only alternative is hysterectomy.

THE CONTROL OF THE MILK SUPPLY IN LARGE TOWNS. By M. Ballo, Budapest.

He said that the official examination of milk delivered for consumption in large towns is subject to extraordinary, often almost insuperable, difficulties. Since the composition—that is to say, the amount of valuable elements contained in it—is subject to great variation in natural milk, and since, according to most regulations, the composition of the weakest, that is the milk that is poorest in such elements, is used as the foundation for the examination, it is obvious that a richer milk can be adulterated or diluted to a certain degree so as to appear as weak, yet not adulterated milk, and be thus offered for consumption. In any such case, it is only possible to decide the question whether the milk is naturally weak or is more or less adulterated with water by means of tests undertaken regularly at the stalls, and this is impracticable for large towns which draw their milk from many and various sources, unless by means of control of all dairy farms and milk depots. But since such continual control would entail much expense, the question arises as to whether it would not be simpler and more effectual to prescribe as the minimum standard a richer average milk instead of the weakest natural milk as at present. The latter proceeding would appear the most suitable, for the purveyors of weak milk would certainly lose the trade in large towns if they are not in a position to provide a supply of richer milk, but the sanctioning of a possible watering of milk would be thereby avoided in the surest and simplest way.

TUBERCULOSIS IN ARMIES. By. Dr. Claudio Sforza, Rome.

He said that tuberculosis is, generally speaking, diminishing in all armies. Its incidence is always more marked during the first year of soldiers in the ranks. In armies tuberculosis is generally an imported disease, proceeding from the revival of old and latent foci existing at the time of admission to the service. In order to reduce the number of cases and of deaths from tuberculosis it is necessary to eliminate all tuberculous and predisposed subjects on entry to the army; to gradually improve the strength and the power of resisting fatigue of the recruits, especially those whose constitution is weak and those who have a

bad heredity; to avoid as far as possible the contraction of the disease by soldiers during their service, and to eliminate promptly all cases of tuberculosis which arise. Cases of the disease, whether curable or incurable, would have to be treated in civil or military sanatoriums at the expense of the State, because armies, while protecting soldiers from tuberculous infection, must not spread the disease among the civilian population. On leaving a sanatorium the patient could receive an annual or temporary indemnity, according to the degree of incapacity at the time.

THE TREATMENT OF HUMAN TRYPANOSOMIASIS. By Dr. Ayres Kopke, Lisbon.

He stated that the present report was a continuation of communications on the same subject made by him to the International Medical Congress in Lisbon in 1906, and to the Congress of Hygiene and Demography held in Berlin in 1907. He had used atoxyl since July, 1905, and in spite of its immediate beneficial action he found that if the trypanosomata had invaded the subarachnoid space relapses occurred and death followed sooner or later. But if the atoxyl injections were begun before this invasion had occurred cure could be brought about by means of this drug alone. He had one patient who had quite recovered and had remained free from symptoms and free from trypanosomata for the last two years, and he had other cases under treatment which seemed likely to give an equally satisfactory result. He dwelt on the fact that the parasites might be already in the subarachnoid space without causing any special symptoms. With regard to prognosis, therefore, cases should be grouped not with regard to the clinical symptoms so much as with regard to the presence or absence of the trypanosoma in the cerebro-spinal fluid. Finally, the treatment, he thought, should begin with maximum doses, no matter what the drug adopted.

PLAGUE IN JAPAN. By. Pro. Kitasato, Japan.

Rats, he said, played a different role in different epidemics. In those of bubonic plague there was frequently a distinct parallelism between the course of the epizootic in rats and the epidemic in man. In the case of pneumonic plague no such parallelism existed. The three species of rats mainly seen in Japan were the *mus rattus*, the *mus decumanus*, and the *mus Alexandrinus*; the first and last were the most common, the second much less so. Five kinds of fleas were met with in rats. Of these the *pulex cheopis* was by far the most important in the

spread of plague. It was not by means of its bite that it transmitted the infection, but solely by the evacuations from its intestinal canal. Fleas prevailed mostly in Japan in the spring. Rats played a leading part in the spread of the disease. Plague was undoubtedly spread from rat to rat by means of fleas, but it had yet to be shown that it was so spread from rat to man. Among measures to control plague epidemics, rat destruction was the most important. Various methods had been employed for destroying rats; poisons, whether chemical or bacterial, had not given satisfactory results. Cats were now being made use of in the endeavor to exterminate rats. This has been strongly urged by Buchanan in India.

THE TREATMENT OF AMEBIC DYSENTERY BY IPECACUANHA. By Dr. George Dock, of New Orleans.

Report on the results of treatment of cases of chronic enteitis, occurring in or near the tropics, with the characteristic clinical features of amebic dysentery, and in all cases with large ameba *Entamoeba histolytica* of Schaudinn, in the feces. Following the administration of Ipecacuanha in doses mentioned below, the amebae disappear from the feces within a few hours, the stools become less dysenteric and in a short time normal, with no more dysenteric symptoms. Continued good health, with no amebae in the feces, as shown by examination after giving the patient Carlsbad salts, up to four years and a half after treatment. In some cases previous treatment with quinin enema, intestinal antiseptics and other drugs had been carried out carefully, but without success. The Ipecacuanha is given in pills, of 0.3 to 0.5, covered with salol, according to the method of Wm. Roberts, U. S. Army. The dose, Grm. 4 to Grm. 7 a day, one pill every hour, or Grm. 2 to Grm. 4 twice a day for one, two or three days according to the severity of the case. By the use of salol-covered pills, vomiting does not occur (or rarely), and opium is not necessary. The results should be controlled by examinations of the feces, and by the use of the sigmoidoscope or proctoscope. Enemata or local medicinal treatment of the colon may be used in addition to the Ipecacuanha.

THE THEORY OF VISION. By Dr. Edridge Green, of London.

A ray of light impinging on the retina liberates the visual purple from the rods and a photograph is formed. The rods are concerned only with the formation and distribution of the visual purple not with the conveyance of light impulses to the brain.



The decomposition of the visual purple by light chemically stimulates the ends of the cones (very probably through the electricity which is produced), and a visual impulse is set up, which is conveyed through the optic nerve fibres to the brain. If it were possible, in a case in which the spectrum appeared of similar length and brightness to both, for a normal-sighted person and a color-blind one to exchange eyes, the normal-sighted would still see colors properly and the color-blind would still be color-blind. There are cases in which the visual purple is differently constituted and is not sensitive to certain rays at one or both ends of the spectrum. The character of the impulse set up differs according to the wave-length of the light causing it. Therefore, in the impulse itself, we have the physiological basis of the sensation of light, and in the quality of the impulse the physiological basis of the sensation of color. The impulse being conveyed along the optic nerve to the brain, stimulates the visual centre, causing a sensation of light, and then passing on to the color-perceiving centre, causes a sensation of color. But though the impulses vary in character, according to the wave-length of the light causing them, the color-perceiving centre is not able to discriminate between the character of adjacent impulses, the nerve cells not being sufficiently developed for the purpose. At most, seven distinct colors are seen, whilst others see in proportion to the development of their color-perceiving centres only six, five, four, three, two or one. This causes color-blindness, the person seeing only two or three colors instead of the normal six, putting colors together as alike, which are seen by the normal-sighted to be different. In the degree of color-blindness just preceding total, only the colors at the extremès of the spectrum are recognized as different, the remainder of the spectrum appearing grey.

**SURGERY OF THE JOINTS AND BONES, WITH REPORT OF ORIGINAL RESEARCH AND CLINICAL EXPERIENCE. By Dr. J. B. Murphy, of Chicago.**

Infective micro-organisms admitted to joints are usually overcome if unassociated with trauma. The same micro-organisms admitted without trauma will cause no reaction, while that admitted with trauma will produce a fatal termination.

The destruction of joints by infection depends on: (a) The virulence of the infection. (b) Diminished individual resistance. (c) Trauma associated with infection. (d) Duration and tension under which the products of infection are held in the joint. (é) The presence of foreign bodies.

Acute, infective, purulent synovitis following punctures, bullet wounds, fractures, injuries and hematogenous infections can practically all be cured without drainage and without ankylosis. Drainage of a joint is practically always a surgical crime.

Resistance to infection in joints can be: (a) Autogenetic from hemorrhage and trauma. (b) Induced by chemical irritants of definite types. (c) When infection is present absorption of its products can be induced by chemicals producing increase in the polymorphonuclear leucocyt.

All joints to be subjected to surgical procedures should be rendered locally immune.

Fractures involving joints, in a great percentage of the cases, are best treated by the open method. It gives the greatest security against deformity and lessens the liability to ankylosis.

Ankylosed joints are practically all amenable to surgical treatment. The perfection of functional results is controlled by: (a) The degree of deformity existing in the ankylosis. (b) The possibility of its reduction without too great shortening of the bone. (c) The facility for interposition flaps. (d) The freedom from pressure on the articular surface during the process of repair.

Joints in the order of facility of restoration of function are: (a) Hip, (b) Elbow, (c) Knee, (d) Shoulder, (e) Wrist, (f) Ankle.

These propositions are supported by experimental demonstrations and clinical cases.

#### MENINGITIS CEREBROSPINAL EPIDEMICA IN NEW YORK. By Dr. Fischer, of New York.

The epidemic of cerebrospinal meningitis was very severe in New York City from 1903 to 1907. In 1906, 1,032 cases were reported, with 812 deaths. In 1907, 828 cases with 624 deaths. The mortality ranged therefore between 77 and 78 per cent. In 1908, in a series of 253 cases reported, there were 182 deaths, a mortality of 71.9 per cent.

The plan of treatment consisted in giving hot baths, for their antipyretic effect, besides anti-spasmodic treatment, such as bromides, morphia and icebags. Intraspinal injections of lysol, colargol and diphtheria healing serum was also injected with good result in some cases and poor result in others. Many varieties of therapeutics yielded the same result. The mortality remained the same. The sequela noted were those of blindness and deafness. In three cases reported by me the infants were

under one year of age. One infant, a breast-fed baby, was only seven weeks old. The diagnosis in all of our cases was made by lumbar puncture. As a rule the fluid was milky or turbid and contained the diplococcus intracellularis. In some cases it was impossible to draw off any fluid by lumbar puncture. That this dry tap of the spinal canal is not due to faulty technique is proven by the many experienced pediatricists who have reported negative punctures of the spinal canal. It is most probably due to the closure of the foramen of Magendie, the result of inflammation. Since the introduction into therapeutics, of Flexner's meningitis serum, two interesting points were noted, first, that there was a sudden decrease in the mortality from between 70 and 80 to between 30 and 40 per cent. Many cases of the fulminating type lingered and lasted very many weeks after the injection of the serum, which I believe would have died very early in the disease. Opinions in America and England seem to be decidedly in favor of the use of this serum, in spite of the fact that we have a mortality as reported. In some cases of meningitis the serum acts like a specific, inasmuch as there was a sudden crisis noted in the temperature, pulse and general condition after one injection of 30 to 60 c.c. of serum. Flexner advises to withdraw from 30 to 60 c.c. of spinal fluid by means of a lumbar puncture and inject no more meningitis serum than was withdrawn, to avoid symptoms of intracranial pressure. Some cases require repeated injections of serum. One case may get well with 30 to 60 c.c., another case may require 120 c.c. or more.

INTRANASAL DRAINAGE OF THE FRONTAL SINUS. By Dr. Fletcher Ingals, of Chicago.

The author's method consists of enlarging the nasofrontal duct by passing in through it a small steel probe—passing over this a hollow burr, operated by an electric motor, thus making a canal 6 m.m. in diameter—placing in this canal a self-retaining gold tube which remains until the canal is lined with mucous membrane, and, therefore, becomes permanent. Then at the end of three or four months, or any convenient time thereafter the tube is easily withdrawn.

Without criticising any other operation, on an experience based on over 30 cases, the author believes the operation safer than any other—believes it applicable to 95% of all chronic cases of frontal sinus empyema, and that it will cure 95% of the patients operated on in from 2 weeks to 6 months.

In the other 5% it establishes a permanent free canal. The



operation usually incapacitates the patient only one or two days and renders it easy for him to take care of the disease himself after a few days. The operation is practically painless under local anesthesia—very short—the actual enlarging of the canal requiring only two to five seconds after all is ready—avoids occur. Tube is worn without discomfort excepting in rare cases when nasis is unusually narrow so that side of head of tube presses into septum. Thickening of mucous membrane in frontal sinus or other changes due to chronic suppuration no bar to healing in the majority of cases if only free drainage, as by this operation is secured. Other suppurating accessory sinuses should also be given free drainage by approved methods.

A NOTE ON THE DIAGNOSIS TALLIES OF DIFFERENT ARMIES. By Col. W. G. Macpherson, London.

The diagnosis tallies in use in the different armies indicate by means of different colors whether a wounded man is slightly wounded or seriously wounded, or whether he is in a condition suitable for transport or in a condition unsuitable for transport. In some cases, such as in the tallies used in Germany, Portugal and the United States, America, the difference in colors also indicates whether a wounded man can walk. Unfortunately there has been no mutual understanding amongst different nations as to the use of these colors, with the result that the color indicating a slight wound in one army indicates a severe wound in another.

This constitutes a danger to the wounded who may be left on the field and come under the care of the medical officers or men of another belligerent; for they may handle with less care a man who has had a tally affixed with a color indicating to them a slight wound but to him a serious wound.

It is, therefore, desirable that the official delegates of the various armies present at this meeting should come to some agreement regarding the adoption of a uniform diagnosis tally. At present, Portugal and the United States of America are the only countries with an exactly similar diagnosis tally.

ARTHRODESIS. By Dr. R. Jones, Liverpool.

The operation should never be performed on children under eight years, not until all deformity has been corrected by wrench and tenotomy. It must not be performed if any hope exists of muscular recovery. It should be planned so as to avoid injury of epiphysis and so that the bones lie in good apposition. Splints should be worn until consolidation is complete.

**DISTURBANCES OF THE INTERNAL SECRETIONS CLINICALLY CONSIDERED.** By Dr. Oliver T. Osborne, New Haven.

Gigantism is a condition due to hypersecretion of the pituitary, and acromegaly a condition primarily of hypersecretion, later hyposecretion of the pituitary (hypophysis cerebri).

The thyroid may not only hypersecrete and hyposecrete, but the component parts of the secretion of the thyroid gland may vary in amount and in chemical constituency, and cause various clinical manifestations. These symptoms and signs vary in all degrees and intensity from exophthalmic goiter on the one hand to myxoedema and cretinism on the other.

Insufficiency of parathyroid secretion causes tetany. A disturbed secretion of the parathyroids may cause paralysis agitans.

Hypertension may be due to hypersecretion of the suprarenals. Continuous low blood pressure and neurasthenic conditions may be due to hyposecretion of the suprarenals. Surgical shock after abdominal operations may be due to the inhibition of suprarenal secretion.

Many of the disturbing symptoms of menstruation are due to ovarian insufficiency or to increased ovarian activity, and it is doubtless probable that many nervous symptoms in women are due to ovarian disturbances.

Uterine hemorrhage, profuse menstruation, and other uterine bleedings may often be stopped by the administration of mammary gland substance.

**THE PATHOLOGY OF LEAD POISONING.** By Dr. Kenneth W. Goadby, of Dublin.

During an investigation conducted on behalf of the Departmental Committee on Lead Poisoning of His Britannic Majesty's Home Office, a number of animals have been subjected to poisoning by various compounds of lead. The methods of infection were: (a) Inhalation. (b) Feeding. (c) Inoculation.

The animals thus experimented upon developed signs of well-marked lead poisoning, the ones inoculated exhibiting the most acute symptoms, the animals subjected to inhalations of dusty air held an intermediate position, and the ones fed on lead compounds showed the least sign of disease. The symptoms exhibited by the animals were in every way comparable with those of man, including wasting, paralytic symptoms, mental symptoms. Careful histological examination was made of all the tissues of the animals, and in all cases where an animal had been poisoned by lead, minute microscopical hemorrhages were to be

found in all the tissues examined. No degeneration was discoverable, but minute hemorrhages were found in the nerves supplying the paralysed muscles, the paralysis evidently having been caused by the pressure of the hemorrhage and not by an early degeneration of the nerve. Microscopical hemorrhages were also found throughout the tissues of the brain, in no case of large extent, and nearly always quite microscopic in size. The various findings described by other observers of sclerosis and other pathological fibroid changes would seem to be the result of these minute hemorrhages.

TECHNICAL POINTS WHICH FURNISH THE BEST COSMETIC FUNCTIONAL AND CURATIVE RESULTS IN MASTOID OPERATIONS. By Dr. W. Schier Bryant, New York.

Strict attention to the following points has given the best cosmetic, functional and curative results in mastoid operations:

1. The employment of rigid aseptic technique.
2. The immediate closure of the external wound with a minimum of drainage.
3. In a simple mastoid operation, the non-interference with the tympanic contents.
4. The healing of the tympanum before the post-aural opening is finally allowed to close.
5. The daily use of Politzerization, beginning three or four days after the operation.
6. The performance of a radical operation only in cases which demand it; and the modification of the technique of the radical procedure so that all the living tympanic structures may be conserved.
7. The preservation of the Eustachian tube intact and patent throughout.
8. Leaving the cochlea intact, except in cases where there are definite indications of an invasion of the cochlea by suppuration.

THE PHYSICAL BASIS OF SECRETION, WITH ESPECIAL REGARD TO PRESSURE. By Dr. Demoor, Brussels.

Dr. Demoor said that a gland, although physiologically differentiated, fulfils a role similar to that of numerous cellular systems having no special histological features. From another point of view every organ is a true gland with regard to the blood and lymph, because it makes and eliminates different substances from those elements and so modifies and regulates



their constitution. The word secretion can and ought to be applied to that function of every cell in the body which enables it to control the physical and chemical properties of its surrounding medium. From the physical standpoint the mechanism of secretion may well be defined by studying a non-glandular cell system. It is governed by the sensitiveness of cells to osmotic pressure; the living elements react when this external pressure changes and by a complex mechanism resist these external disturbances and so maintain an organic balance. In these circumstances the action of the cell results at one and the same time in the properties of imbibition, solution, and ionic diffusion, molecular partial permeability of the cell walls, and in the phenomena of absorption with the formation of complex chemical bodies. In examining any instance of secretion the following points should be studied especially: the penetration into the cells of water and dissolved substances; the nature of the cellular work performed during the process of secretion; and the mechanism of elimination. But the physical problems which remain to be solved before all these processes are explained are numerous. The part played by the nerves in secretion has not yet been explained.

THE SERUM THERAPY AND VACCINATION TREATMENT OF ACUTE ARTICULAR RHEUMATISM. By Dr. Rosenthal, Paris.

Dr. Rosenthal divided the investigations made up to the present on the bacteriology of acute rheumatism into four categories. The first contained the early, uncertain, and negative results, many of which were due to conclusions either too hasty or based on too few experiments, or to errors in technique such as insufficient dilution of the blood. Without considering the finding of pathogenic germs like *staphylococcus aureus* which often occur in symbiosis with the bacteria to be mentioned, two bacterial theories of acute rheumatism find equal favor with investigators. One concerns the *diplococcus* of rheumatism and the other Achalme's anaerobic bacillus. The diplococcal theory started in the work of Leyden, 1894, of Triboulet, 1897, and Wassermann, 1899. The significance of *micrococcus rheumaticus* is interpreted in two different ways. On the one hand Triboulet, of Paris, and his followers identify this *diplococcus* with the *enterococcus* of Thircelein. On the other hand, Wassermann, Poynton, Paine, Shaw, Conner, Walker, Herry, F. Mayer, Malkov, Predtedensky, Reyffel, Lewis, and others consider the *diplococcus* to be a specific microbe on account of its vitality, of

its power of producing formic acid, of its failure to produce pus experimentally, and the presence of its sensibilization substance in the blood of rheumatic people, of its hæmolytic power, and of the experimental production of the disease in rabbits by the diplococcus. All these properties, however, are inconstant, and Dr. Rosenthal admits the identity of the diplococcus with the enterococcus of Thiercelin, considering it to be a secondary or concomitant infective organism in rheumatism, subject to a possibility to be mentioned. The theory of Achalme's anaerobic bacillus started with that investigator's work in 1891 and had force given to it by the positive results of hæmobio-culture, that is to say, culture in living blood, devised by Thiroloix in 1897. More definite confirmation is given by the work of Carrière, Pac and Lesieur, Savtchenko, Melkich, and, above all, of Thiroloix and G. Rosenthal. These last two authors established by a series of experiments that the rheumatic bacillus of Achalme is not the same as the bacillus perfringens, from which it can be differentiated by chemico-cultural tests—namely, the fermentation and inversion of saccharose, the nitrification of nitrates, the absence of foetidity from its cultures, as well as by its different method of sporulation, its power of acting as an aerobe, and its experimental causation of the arthro-visceral symptom group which Thiroloix was able to produce by infecting a rabbit with this bacillus. With a sufficient dilution of the blood and by the use of the author's sealed capsules hæmobio-culture gives very numerous positive results. On the other hand, the anaerobic bacillus is found in cases of rheumatism, both normal or abnormal, in the blood, the secretions, and the tissues. Achalme and Thiroloix have found it post mortem and it has never been found in any other disease. Both *in vivo* and *in vitro* it can undergo transformation to a diplococcus, and this fact probably explains the presence of a diplococcus in some instances, at least. This the author calls the theory of the bacterial cycle. The author then described his method by which he prepares Wright's rheumatic vaccine and passed on to the consideration of serum therapy. Antidiplococcic serum therapy has been found quite unprofitable in Germany in acute rheumatism, but better results have been obtained with Rosenthal's serum R. which is prepared at the Grenoble Institute of Serum Therapy and which is obtained from horses vaccinated against the anaerobic bacterium by the injection of cultures of the bacillus at first grown in air and later anaerobic. This serum causes the articular swellings to diminish and the fever to lessen and prevents visceral manifestations of the disease. The author, however, considers that it

would be bad treatment to refuse patients, treated by his serum, the benefits of salicylate treatment; and he finished his paper (which included a valuable bibliography of the subject) by giving the following summary of treatment for a severe case of rheumatism: Give the serum R. with salicylate of soda and electrargol, and use the vaccine in the intervals of the exacerbations of the disease.

#### NERVOUS AND PSYCHICAL MANIFESTATIONS OF ARTERIO-SCLEROSIS.

By Professor von Tschisch, Dorpat.

Professor von Tschisch said that a common disease, especially between the ages of 50 and 55, was "arterio-sclerotic neurasthenia," characterized by anxiety and depression (in association with cardiac symptoms), insomnia, heaviness and numbness of the head, fatigability, and incapacity for work. On the mental side it is distinguished by apathy, ill-humor, and irritability. From this stage the transition is a gradual one to arterio-sclerotic dementia, in which the memory is greatly impaired, all psychical processes are slower, the patient becomes stupid, his opinions and judgments are mechanical and elementary, his imagination atrophies, and his will-power diminishes.

According to Dr. Cramer, of Göttingen, speaking on the same subject, the nervous phenomena of arterio-sclerosis precede the mental. The former usually consist in a triad of headache, giddiness, and defective memory, associated with, or followed by, transient pareses, slowing of speech, sluggish and unequal pupils, and paræsthesiæ. Prominent among psychical symptoms is depression, sometimes also irritability and a paranoid symptom-complex.



## Editorials.

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### THE CANADIAN MEDICAL PROTECTIVE ASSOCIATION.

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Physicians of Canada are commencing to realize that our Protective Association is doing good work. The membership has steadily increased, as the following figures will show: 242 in 1902, 253 in 1903, 288 in 1904, 351 in 1905, 471 in 1906, 528 in 1907, 553 in 1908, 622 in 1909.

We learn from the report of the President, R. W. Powell, and the report of the Solicitor, Mr. F. H. Chrysler, that only a small number of complaints have been made against its members during the past year. In August there were three cases pending against members—one in New Brunswick, one in Saskatchewan, one in Ontario, and another suit was threatened in Nova Scotia. The facts in all these cases lead to the belief that they will go the way of all former actions for malpractice that the Association has handled, and leave the members victorious and unscathed.

The Solicitor expressed the opinion that the Association should be congratulated on the very great success which has attended its efforts to protect its members from frivolous and unfounded actions. He also attributed the falling off in actions very largely to the fact that it is now generally understood that the members of the profession cannot readily be intimidated by threats of an action for malpractice.

When we consider the enormous advantages which accrue to the profession from such co-operation on the part of its members, it appears strange that Dr. Powell and those associated with him should have had so much difficulty in getting physicians to take an active interest in this organization. We are glad to know, however, that it is now on a sound basis, with a cash balance of over four thousand dollars. For that our thanks are due chiefly to "Bob" Powell.

## THE CENTENARY OF OLIVER WENDELL HOLMES.

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The Medical Society of the County of New York celebrated the centenary of Oliver Wendell Holmes on the evening of October 9th, 1909. We are told by the *New York Medical Journal* that nearly all those who participated actively on this occasion had been friends or associates of the notable man they had met to honor.

Dr. A. Jacobi spoke as follows: "This celebration is not connected with any sense of mourning over the death of Holmes; for he died full of years and achievements; but with the joyful reminiscence of his birth, which began a career of manifold study, intellectual growth, useful practice and teaching of medicine, in part new and epoch making, and instructive and entertaining writing of a nature beyond what is mostly meant by these adjectives. His mental stature reached in height far above the clouds that limit the horizon of common mortals. He was a rare combination of science and poetry. He was destined to be a follower of Apollo, the only Greek god who combined medicine and art and music and poetry."

Dr. Maurice H. Richardson, of Boston, referred to Dr. Holmes' wonderful ability as a lecturer and a teacher. His lectures on the somewhat dry subject of anatomy were exceedingly interesting. At the same time he had no sympathy with those who belittled bedside as compared with laboratory teaching. He quoted from Holmes as follows: "I am in little danger of under-rating anatomy or physiology; but as each of these branches splits up into specialties, any one of which may take up a lifetime, I would have them taught with a certain judgment and reserve, so that they shall not crowd out the more immediately practical branches. I myself have nothing to do with clinical teaching, yet I do not hesitate to say it is more essential than all the rest put together so far as the ordinary practice of medicine is concerned."

Dr. Edward O. Otis, of Boston, said: "It is a peculiar pleasure to me to join with you in this celebration; for it was my good fortune to be a pupil of Dr. Holmes' when he taught

anatomy in the old Harvard Medical School. We were a motley, boisterous crowd when we rushed for the front seats of that old, unventilated amphitheatre, when the doors were opened for his noon lecture, and awaited with impatience the appearance of the little professor, who seemed to skip into the room with the lightness of a child and an indescribable glow upon his face.

"Of the various purely medical essays of Dr. Holmes, I suppose the one upon 'The Contagiousness of Puerperal Fever' would be generally regarded as constituting his greatest claim to recognition as an achiever in medicine. It was a notable contribution then, and would be so now under similar conditions. His essay on homeopathy is full of keen satire and uncompromising denunciation. His addresses to medical students are full of original and wise reflections, rich in illustration and analogy, and sparkling in epigrammatic expressions."

From these brief abstracts of some of the addresses delivered our readers may readily conclude that the proceedings were intensely interesting. To those who would gladly learn more concerning this unique celebration we may say that a fairly complete report of the proceedings is given in the *New York Medical Journal*, October 16th, 1909.

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## VENTILATION OF HOUSES.

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The tendency of the age is to appreciate more fully the inestimable advantages of fresh air. Physicians and surgeons are learning much about its importance in the treatment of tuberculosis, septicemia, pneumonia, etc. There appeared in the *Toronto Star* of October 18 a very sensible editorial on the subject. It referred first to an incident that occurred on a beautiful sunlit October day, when two passengers were looking out of their car window, and admiring the coloring of the woods. One asked the other to observe the farm houses along the line, which were mostly handsome and substantial dwellings.

"But do you notice that in these houses every window is tight shut?" This was the condition observed for many miles.



"The farm houses within sight of that railway line on that day were shut and barred against sun and breeze, as if they carried pestilence instead of health." We find in Toronto and other cities in Canada that the laity are learning valuable lessons respecting ventilation. Many people who formerly slept in rooms as nearly as possible hermetically sealed in cold weather are now sleeping in verandah bedrooms, or in rooms with windows wide open in both summer and winter. The person who does this for a time feels absolutely uncomfortable in a tightly closed room, sleeps badly, and gets up in the morning feeling depressed and uncomfortable.

The doctor in Toronto in going his rounds learns well the wonderful difference between the well-aired house and hermetically sealed house. One of the best known samples of the latter is the economically conducted boarding house. *The Star* is correct in saying that "A house is not fit to live in unless the outdoor breezes are allowed to blow through it, and the beams of both summer and winter sun are welcomed through open windows and doors."

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#### MEETING OF THE AMERICAN ACADEMY OF OPHTHALMOLOGY AND OTO-LARYNGOLOGY.

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The Annual Meeting of the Academy was held at the Hotel Astor, New York, on October 4th, 5th and 6th, with a large attendance. An address on Ophthalmology (by invitation) was given by Dr. Juan Santos Fernandez, of Havana, Cuba. The address on Laryngology, which it was hoped would have been given by Dr. John Sendziak, of Warsaw, Poland, was read by title, the writer being unable to be present owing to illness.

The President, Dr. Otto Stein, of Chicago, gave an interesting address on "The Functions and Possibilities of the Academy," the chief point in which was the necessity of educating the public with regard to the prevention of blindness, especially in the new born and among workmen, by the use of better tools.

Symposia were held on the social, hygienic and economic aspect of the eye, ear, throat and nose, the nasal accessory sinuses

and the orbit and the comparative merits of the methods employed in the various mastoid operations. The academy meeting was attended by Dr. Birkett, Montreal, and Drs. Ryerson, Reeve and Goldsmith, of Toronto.

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## THE ROYAL EDWARD TUBERCULOSIS INSTITUTE.

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Before a large audience of invited guests the new "Royal Edward Tuberculosis Institute" was opened October 21, in Montreal, by His Majesty King Edward, who at the time of the ceremony was in Chichester, England. Sir George Drummond, President of the Institute Board of Managers, delivered a short address at 2.30 p.m. At the conclusion of his address he read the following telegram, which was to be sent to His Majesty the King: "May it please Your Majesty: As chairman at the inauguration of the institute which Your Majesty has been graciously pleased to honor with your name, may I, on behalf of the donors (Lt.-Col. Burland and his sisters), of the officers of the Royal Edward Institute, and of the loyal citizens of Montreal and others here assembled, convey to Your Majesty our profound gratitude for your interest in this work for the welfare of your loyal subjects in Montreal and the Province of Quebec. May I beg Your Majesty to honor us further by opening the doors of the institute."

While this was being despatched by the operator Lt.-Col. J. H. Burland formally handed over the deeds of the property to Sir George Drummond, who received them on behalf of the association.

Dr. Phillips, of Edinburgh, then delivered a short but interesting address. Then the announcement came that the King's reply was coming, and that he was ready to perform the act by which the institute would be officially opened.

Everyone waited expectantly. All eyes were fixed on the royal standard, only used when royalty is present, and which lay drooping at the foot of the flagstaff. Suddenly there was a click, a buzzing of the motor, the flag rose gracefully to the top of the steel column and floated out on the breeze. At the same moment the doors flew open and lights appeared in every part of the building.

## SIXTEENTH INTERNATIONAL CONGRESS OF MEDICINE AT BUDAPEST.

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(Letter from Dr. W. H. B. Aikins.)

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The Sixteenth International Congress of Medicine was opened on the 29th of August, at 11 a.m., in the large banqueting hall of the Municipal Building, in the presence of the Archduke Joseph, representing the Emperor of Austria and King of Hungary, patron of the Congress. Many ministers, numerous diplomats and high officials, the delegates from 32 governments, and about 3,500 medical men assembled at Budapest from all parts of the world to assist in this scientific reunion. Owing to the indisposition of President Muller, the meeting was opened by Professor Baron Frederick de Koranyi, who expressed words of welcome. After the Hungarian national hymn had been sung by a specially selected choir, His Imperial and Royal Highness Archduke Joseph opened the Congress in the name of His Imperial and Apostolic Royal Majesty in the following words:

*"Messieurs,—*It is with a particular satisfaction that I have the honor to open, representing His Majesty, the Sixteenth International Medical Congress.

*"Messieurs,—*To be at the service of humanity, to consecrate all the physical forces and intellectual faculties that God has given us to the well-being of our fellow-man, remains always the ideal object of our existence. We cannot do without the help of others, and the individual value of each man augments in due measure as his work is more profitable to other individuals, or to humanity at large. What is true in regard to a person is still more true in regard to an entire profession. In this respect all equably minded people must recognize that there are but few professions exercising on the individual, or on the family, or as a last consequence on the whole life of states, an influence so profound and so widespread as that of the medical profession. Every living being has the desire and the right to be happy, and this for as long a time as possible, and it is no new truth that the fundamental condition of happiness on this earth is a healthy, satisfied, long life.

*"As the strong arm and vigorous spirit of a father in good health shape the prior condition and state of happiness for the whole family, so the health and vitality of successive generations constitute the well-being of the state, and, in consequence, humanity.*



"That is why, gentlemen, when with your knowledge you exert yourselves to preserve from peril the health of the individual, to cure diseases and restore the capacity to work, you try to safeguard the whole population against that which attacks the health, and which threatens human life. In addition to the recognition of the individual, you are fully assured of the gratitude of mankind. Outside the resulting profit from your scientific activity, one ought still to recognize in this activity the inherent value of all scientific efforts; to have his place in the progress of the civilization of humanity. Besides, one ought not to forget that in your profession each of your words and acts is destined to become an aid to the suffering. You have the mission to cultivate in every respect the noble feelings of humanity, not only in the service of science, but also the feelings of kindness of all.

"We also know the great progress that your science has made in olden times. We all know the great success you have achieved owing to your knowledge of suffering humanity. With a full recognition of the results that you have already attained; with the firm hope that this assembly will contribute greatly to the development of medical science, and that it will in a measure elevate the level of civilization in general, relieve the suffering of individuals and strengthen the economical principles of the state; I ask the richest blessing of the All Powerful on all the members of this assembly and on their work. In the name of His Imperial and Apostolic Royal Majesty I declare the Congress open."

\* \* \* \* \*

Following the address of the Archduke, His Excellency M. le comte Albert Apponyi, Hungarian Minister of Education, delivered an erudite speech in French, and in the choicest terms extended a warm welcome from the Hungarian Government to the representatives of medicine of nearly every civilized country.

Then the Lord Mayor of Budapest, Herr Calman de Fulepp, extended a cordial welcome in behalf of the municipality to the visiting delegates.

#### THE PRESIDENT'S ADDRESS.

Professor Muller, the President of the Congress, being indisposed, his address was read for him. In this was presented an historical review of the various International Medical Congresses, the first being held in Paris in 1867, consisting of 333 French and 589 foreign members. Florence, Italy, was the seat of the second Congress. Four years later, in 1873, the third

## 712 SIXTEENTH INTERNATIONAL CONGRESS.

Congress was held in Vienna, when compulsory vaccination was recommended to the various European governments. The fourth Congress was held at Brussels in 1875. The principal topic of discussion at this meeting was the role which alcohol played as a therapeutic agent.

In 1877 the fifth Congress was held at Geneva. Among the noted men present were Bouchard, Broadbent and Esmarch. Amsterdam had the honor of the sixth Congress in 1879, with a membership of between 400 and 500. Lister, Virchow, Donders, Sayre and Semmola took a prominent part in the work of this meeting. The membership of the seventh Congress, which was held in London in 1881, was 3,182. Many of the noted men of the time were there present. Virchow, Pasteur, Paget, Lister, Huxley and Charcot were on the platform at the opening meeting, which was opened by the then Prince of Wales.

The eighth Congress was held at Copenhagen in 1884, with a membership of 1,700. The ninth Congress was held at Washington in 1887. Over 7,000 members were registered at the tenth Congress, held at Berlin in 1890, when Virchow was president, and Koch, Lister, Bouchard, Bergmann and Billroth took part in the discussion. The eleventh Congress was held at Rome in 1894; the twelfth at Moscow in 1897; the thirteenth in Paris in 1900, with a membership of over 6,000. The fourteenth Congress was held at Madrid, under the patronage of King Alfonso. The fifteenth Congress was held at Lisbon in 1906 under the patronage of King Carlos.

Dr. Muller concluded his address as follows: "Medicine is a science of expediency; it originated the necessity to relieve human suffering. To-day we work upon the strictest scientific methods which are at the disposal of the exact physical sciences, and we have successes to point to, to which undeniable statistics bear witness, showing with what weapons medicine can safeguard the life and health of the individual, and how fortified she is to protect whole continents against the ravages of epidemics. With full right our breasts are filled with the noble consciousness that no science stands up so wholly in the service of altruism as medicine."

### ADDRESS OF THE SECRETARY-GENERAL.

Then Professor Emil de Grosz, General Secretary, delivered an able address, in which he described the work of organization of the Congress since its inception in 1906, and reported that 3,432 members had already signed the roll and that there were 900 ladies accompanying the members; that 274 delegates had

been sent from various governments; 149 from various universities; 327 from municipalities and learned societies. The numbers of members, from the following countries, enrolled were as follows: America (United States), 202; Argentine Republic, 37; Austria, 235; Belgium, 47; Bosnia, Herzgovina, 9; Brazil, 25; Bulgaria, 18; Chili, 4; Cuba, 6; Denmark, 10; Egypt, 21; France, 281; Germany, 288; Great Britain and Ireland with the Dominions beyond the seas (Dominion of Canada, 14; Australia, 1), 97; Greece, 19; Hungary, 1,436; Italy, 170; Japan, 48; Mexico, 3; Monaco, 2; Norway, 2; Netherlands, 33; Portugal, 32; Roumania, 10; Russia, 288; Servia, 7; Spain, 67; Sweden, 5; Switzerland, 29; Turkey, 22; Uruguay, 3.

#### GOVERNMENT DELEGATES ADDRESS THE MEETING.

The speeches of the delegates of the various countries were pithy and to the point. Professor Uhtoff replied for Germany; Ritter von Huberler for Austria; Dr. F. W. Pavy for Greater Britain; Professor Bacelli for Italy; Professor Kitasato for Japan; Professor de Ott for Russia; Professor Zoeros Pasha for Turkey; Dr. J. H. Musser for the United States; Dr. G. Sterling Ryerson and Dr. McPhedran were on the platform as representing Canada, while France was represented by Professor Landouzy, who was given a hearty reception. His eloquent address in French, which was considered one of the great features of the opening, was as follows:

"To His Imperial, Royal and Apostolic Majesty we bring the very respectful homage of the French medical men. Coming from the native country of Bichat, Corvisart, Laennec, Dupuytren, Bonnet, Bretonneau, Claude Benard, Villemin, Pasteur and Curie, our delegation assembles here to offer to the country of Philippe-Ignace Sammelweis their cordial greetings and the collaborations from academies, universities, hospitals, physicians and medical societies from all parts of France.

Numerous are the reasons which have attracted so many colleagues to Transleithania. It is not only the renown of your thinkers, of your artists, of your scientists. It is not only the peaceful beauty and then the torrent force of your Danube, or the wealth of your Tisza, from whose banks flow your wines, which are of gold in color and in value. Nor were we attracted by the souvenirs and the monuments of your glorious city. We came to see what you show with justifiable pride: the palaces, the libraries, the schools, the museums, the institutions which you have consecrated to the worship of Arts, Sciences and Charity. You are proud, and rightly so, of your institutions for the relief



of the poor, for the spread of education and the spirit of human solidarity by which you desire that throughout Hungary the practice of medicine, having henceforth become as much the art of preventing as of curing illnesses of the mind and of the body, shall be exercised with more justice, so that, to promote the psychical and physical health of the people, there shall be a better distribution of material and moral well-being among individuals and collectivities.

"We know how greatly the rate of mortality and misery has been decreased in your capital. We know that the time is past where with you 'the seekers of beds' are legion. We know how healthful houses have replaced the old ruins where a whole population of agricultural workers lived crowded together, and how through the impelling power of Dr. Werkerle, President of the Council, the bright city women workers are going into the suburbs to live. We know how with you, as in all countries where sanitary politics is honored, your statesmen, the Andrassys, the Aponnyis, the Kossuths, the de Daranyis unite with the medical men, who by reason of education are sanitarians, that morals may be made healthy, without which the laws for public safety remain as a dead letter.

"In this time of international struggle, where each civilized people work conquests other than those of warlike victories, we love to assemble together in incessant congress, curious of many things other than the equipment of the land and naval forces, even the aerial conquest, for which through envy to be foremost all the states of Europe run into debt; that of which we take care, we other doctors, is an international war against disease. What we visit with curiosity are the fortresses—the clinics and the laboratories, where one makes the assault on ignorance and misery. What we love are the arsenals and the equipments which kill epidemics, epizootics, epiphyties, which make disease and pain avoidable, old age endurable and death delayed. This is why we take part in your solemn international gatherings and why our illustrious colleagues, Professors Muller and Emile de Grosz, wish to have discussions as interesting and brilliant as those of previous reunions.

"That is why we have responded to your appeal to assist in the special advancement of medical science, each one coming to borrow from his neighbor that which promises to be most profitable to all. Your former President of the Cabinet, M. Coleman de Szell, by his patriotism and philanthropy, succeeded in having passed the law of 1901, and it is due to him and to the instruction of the minister, M. Jules Andrássy, that last year

legal protection was extended to over more than 36,000 infants.

"There is another struggle than that directed against the miseries, disgraces and loss of child life, of which we will study the mechanism with so much more interest since we know that lately you have entered upon the same contest, following the warm discourses in 1906 in the Senate chamber by our fellow-member Frederick de Koranyi—the struggle against tuberculosis. We know how, thanks to private philanthropy, to the state, to the solicitude of Count Andrassy and Leopold Edelsheim, Guylay, through the energy of Dr. Chyser, has entered into the struggle in the Kingdom against this disease. Hungary finds the dispensaries of the Calmette type the best weapon against tuberculosis.

"It is in a spirit of cordial scientific emulation that the French delegation respond numerously and earnestly to the invitation of the Committee. I surround as with a halo the reputation of your learned men and your ministers, who, I know, practise the thought of Disraeli—"The care of the public health is the first duty of a statesman."

"To the wishes already so ardently expressed for the full success of our meeting, I have the very great honor of adding the wishes of France. May it please Minerva that by the Sixteenth International Medical Congress may be reflected on triumphant Budapest for the greatest benefit to humanity as much lustre as was known by the eighth International Congress of hygiene and demography, so marvellously organized by the illustrious J. Fodor and his colleague, Calman Muller, and presided over with so much authority by the eminent engineer, Hieronymi, then Minister of the Interior. Before this Congress, amid the other powerful debates and after learned discussions, was submitted to your judgment the communication of Emile Roux on the employment of anti-diphtheritic serum, which the pupils of Pasteur made in the Hospital for Sick Children at Paris. At Budapest, on the same day fifteen years ago, was gathered together the most distinguished hygienists, dermatographists and bacteriologists. So to-day the most eminent physicians meet. These are those attracted by the radiance of the science of medicine and the high culture and courtesy of the Magyars."

#### SECTIONS CONVENE. ENTERTAINMENTS.

On Monday, August 30th, at 9 a.m., the first session of all the sections of the Congress convened, and again at 3 p.m. A number of the delegates paid a visit at the same hour to the Apenta Springs. At 5 o'clock Professor Bacelli delivered a

lecture on "*Sulla introduzione dei Medicamenti eroici entre le Vene*," and at 9 o'clock in the evening the Lord Mayor of Budapest received the members of the Congress, including the ladies, at the City Hall. Champagne was served at 10 o'clock.

On Tuesday, the 31st of August, the session again opened at 9 a.m. and 3 p.m. Among the interesting side trips of the day were: an excursion to the city brewery, visit to the Apenta Springs, visit to the waterworks, and a visit to the Louis Francois champagne factory. The soiree given in the evening by the Hungarian ladies at the Royal Hungarian Museum was a success brilliant and unique. The tables were spread in the open air, and the charming Hungarian ladies, beautifully gowned, proved most capable in meeting all the requirements of hostesses.

On Wednesday the various sessions of the sections opened again promptly at 9 a.m. and 3 p.m., and those members who were tired of absorbing scientific work had an opportunity of visiting the champagne factory of Joseph Torley & Co. by special steamer on the Danube. A performance of Emerich Madach's "Tragedy of Man" was enacted at the National Theatre, where the acting was superb and the scenic effects long to be remembered.

#### RECEPTION AT THE COURT.

But the climax of social events at the meeting was the reception at Court, which was held at the royal palace by order of His Imperial Majesty, the Archduke Joseph receiving. About 1,500 invitations are said to have been issued. The official delegates were divided into groups according to the nationality, and each presented by Count Apponyi, supported by Count Zichy and the two Secretaries of State, together with Professor Grosz, the General Secretary of the Congress, and Professor Karoly Jassinger.

The Canadian delegates had the honor of an invitation to this reception. Among those present were: Dr. King, of Cranbrook, B.C.; Dr. Jasper Halpenny, of Winnipeg; Drs. Drake and Meek, of London; Drs. G. Sterling Ryerson, Primrose, Bruce, McPhedran and Aikins, of Toronto. The following delegates from Great Britain, the Dominion of Canada and Egypt were presented: F. W. Pavy (London), President of the English National Committee; G. F. Bashford (London); D'Arcy Power (London), Secretary of the English National Committee; Ruffer (Alexandria); William Grant MacPherson (London); A. McPhedran (Toronto), President Canadian National Committee; G. S. Ryerson (Toronto), representing the military service of



Canada; W. H. B. Aikins (Toronto), Secretary of the Canadian National Committee; Sir Benjamin Franklin (London); Sir Havelock Charles (London); Sir William Sinclair (Manchester); Sir Felix Semon (London).

The British delegation was received in audience at about 10 o'clock. Each member had the opportunity of conversing with the Archduke, who was most friendly in his expressions to those whom he received.

The usual work of the session was carried on on Thursday, the 2nd of September, and in addition provision was made for the visiting of the various hospitals of the city, both civil and military, as well as visits to many points of interest. At 8 o'clock the presidents of sections held receptions. Professor Grosz gave a large At Home at the Park Club, and Professor Baron de Koranyi entertained the members of the medical section at a most brilliant reception.

#### PROFESSOR LANDOUZY ENTERTAINS.

It was also the writer's good fortune to be entertained at a luncheon given by Professor Landouzy to the French delegation in the banqueting hall of the Grand Hotel Hungaria. Covers were laid for about 100, and the speakers, who used the French language, expressed towards the Hungarian nation feelings of greatest amity, and praised in no measured terms the magnificent organization of the Congress, the unbounded hospitalities of the people and the wit and beauty of the fascinating ladies of the Hungarian capital. Count Albert Apponyi, a distinguished aristocrat of the country, distinguished as an administrator, a linguist of note and an orator of power, replied eloquently to the moving toast proposed by the President of the French Committee.

#### APPENDICITIS.

On Friday, the 3rd of September, in addition to the work of the sessions at 9 a.m. there was held a common session on the standard subject of appendicitis.

"The discussion became one in which conservative Europe was arrayed against radical, or rather progressive, America. The continental physicians, led by Sonnenberg, of Berlin, in a paper entitled 'The Early Operation in Appendicitis,' contended that operation was seldom called for, certainly not so frequently as American writers would lead us to suppose. Sonnenberg reported on 300 cases of undoubted acute appendicitis in which the attendant had refrained from operation, and in which a

perfect recovery had been obtained. He maintained that early operation was not essential in acute appendicitis and that the patient's condition in recovery following the conservative plan of treatment was much better than it was when the appendix had been removed. The surgical, or operative, side was taken by John B. Murphy, of Chicago, and Robert T. Morris, of New York, who spoke strongly and with emphasis of the duty of operating in the early stages, before such extensive damage had been done as seriously to jeopardize the life of the sufferer or to expose him to the dangers attendant upon a recurrence of the inflammatory process at a time or in a place when skilled surgical help could not be obtained. The speaker quoted the statistics put forth by the advocates of both methods of treatment, and showed that those of the Americans, in cases in which early operation had been resorted to, were more favorable than the European figures of the results of the so-called conservative or expectant plan of treatment."—*Med. Record*.

At 5 p.m. a lecture was delivered by Dr. J. Loeb on "Artificial Parthenogenesis and Its Bearing Upon Physiology and the Pathology of the Cell."

#### RECEPTION BY COUNT AND COUNTESS APPONYI.

In the evening one of the most brilliant and successful receptions was held. Count Apponyi and the Countess received 400 members and their ladies at the Park Club in the City Park. The guests included representatives of every nation—for the most part the official delegates and the representatives of the medical press. Among the Hungarian ministers and members of Parliament present were Counts Zichy, Toth, Molnar, von Bezeredi, Naray-Szabo, Thurn-Taxis, Fontenay and Boda. Another most interesting guest was the Cardinal, Graf Peter Bay, whose literary achievements have secured for him a world-wide reputation.

#### MILITARY SECTION.

The XXth or Military section was one of the great successes of the Congress. Germany, France, Great Britain, Denmark, Italy, the United States and Canada (the latter by Colonel G. Sterling Ryerson) were officially represented. Dr. de Farkas entertained the foreign delegates at a splendid luncheon at the Nobles Club, an entertainment which was greatly enjoyed. Later in the week the Society of Military Surgeons of Budapest gave a magnificent banquet at the Military Club. It was a really grand affair in a superb setting.

## SIXTEENTH INTERNATIONAL CONGRESS. 719

### CONGRESS TO MEET IN LONDON IN 1913.

The International Commission of the Congress accepted the invitation to hold the next Congress in 1913 in London. This was the first occasion on which the British Government had invited a scientific congress to assemble in London. The following despatches in answer to the invitation were forwarded:

*To His Very Gracious Majesty Edward the Seventh, King of Great Britain and Ireland:*

The Sixteenth International Congress of Medicine, held at Budapest under the august patronage of His Imperial and Apostolic Royal Majesty, has unanimously decided at its final sitting to accept the very courteous invitation of the Government of Your Majesty to hold its next session in Great Britain during the year 1913. The Congress humbly begs Your Very Gracious Majesty to bestow upon it your august patronage, and presents to Your Majesty its homage of profound respect and infinite gratitude.

CALMAN MULLER, President.

EMILE DE GROSZ, General Secretary.

The other despatch was addressed:

*To the Secretary of State for Foreign Affairs, Whitehall, London:*

SIR,—The Sixteenth International Congress of Medicine, held at Budapest under the august patronage of His Imperial and Apostolic Royal Majesty, has unanimously decided at its final sitting to accept the very courteous invitation of the Government of His Very Gracious Majesty, and will hold its next session in Great Britain during the year 1913. The Congress begs you, Sir, to be so good as to accept this reply, and expresses in advance the warmest thanks for the hospitality it will receive in your country.

CALMAN MULLER, President.

EMILE DE GROSZ, General Secretary.

Dr. F. W. Pavy, of London, was named as the next President.

### CLOSING CEREMONIES.

On Saturday the closing ceremony was held, the President of the Congress, Professor Muller, being in the chair. Various resolutions of thanks and appreciation were passed with great unanimity. The various nationalities were represented by offi-



cial delegates, who gave expression to the general feeling of the different countries in declaring that Hungary had placed itself in the van of nations by the magnificent and successful Congress which had just been brought to a close.

Dr. F. W. Pavy, President-elect, was received enthusiastically, and emphasized especially the great success of this meeting from both the scientific and social sides. Dr. R. Blondel (Paris) spoke on behalf of the International Association of the Medical Press. The Mayor of Budapest expressed the satisfaction of the citizens at having had so many savants, including many of the most celebrated in the world, at present in Budapest. Count Apponyi, speaking on behalf of the Hungarian Government, said (*Lancet*) "He had prepared no speech, but he would take Professor Salamonsen's admirable phrase as his thesis. 'Merci, adieu, au revoir.' He thanked the members of the Congress especially for their display of scientific knowledge, and declared that the medical profession in Hungary would persevere under the light given them, and would maintain in their hearts the flame which had been kindled. With regard to the word 'adieu,' all that was elevated and good was of God, and he consigned them all to God's keeping. But how was he to say 'au revoir'? The Congress would meet again in London, where he had no business. His presence at the Budapest Congress was an accident. But if he could not see them again in person and in London, ideas and sentiments were always visible; by the work they would accomplish he would continue to see them, for his government would always study the humanitarian aspirations of the medical profession. 'We will never cease to see you, so I will say, 'Merci, adieu, et nous vous verrons toujours.'"

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The visiting ladies were delightfully and elaborately entertained by a special committee of cultured Hungarian ladies under the presidency of Madame de Bokay. To her and to the other members of this committee for courtesies so graciously extended our grateful appreciation.

In the *Revue de Hongrie* of the 15th of August, a copy of which was handed to each member of the Congress, there appeared an excellent article on "Souvenirs du Canada," par le comte Pierre Vay de Vaya. This article was spoken of and helped to bring Canada into prominence at this gathering.

The Canadian Committee have every reason to be pleased and gratified with the manner in which, as a committee and individually, they were entertained in the progressive and beautiful city of Budapest. The leading officers of the Congress ex-

pressed their pleasure in having so large a deputation from the Dominion. Count Apponyi in conversation showed that he was quite alive as to what was taking place in Canada. Professor Baron de Koranyi entertained some of the members of the Canadian delegation in a manner most charming. The Secretary-General, Professor Emile de Grosz, tried to anticipate the wants of the delegation and was at all times most helpful. To Professor Arpad Bokay, president of the section in therapeutics, we are also greatly indebted, as well as many other officials, and to Dr. Richard Kovacs for kind attentions, while Dr. Charles Jassinger, the Secretary of the Congress, one of the hardest worked officials, seemed to have always leisure to talk to his Canadian confreres, and was indefatigable in his efforts to advance their pleasure and interests. The writer cannot conclude this incomplete sketch of this most important, superbly organized, highly successful and enjoyable Congress without expressing his profound appreciation to Dr. Jassinger personally and on behalf of the Canadian Committee.

W. H. B. A.

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## NOTES.

The Sisters of the Hotel Dieu, Kingston, will erect a new hospital building to connect with the Brock Street end of the present main building. The building will be 86 feet by 40 feet and the same height as the present building. It will cost \$40,000.

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*Pediatrics*, the well-known monthly journal devoted to the study of disease in children, has been purchased by Dr. Fitch, formerly editor of Gaillard's *Southern Medicine*. We understand that Dr. Fitch, who will be the editor-in-chief, contemplates many changes in *Pediatrics*, and will have associated with him a large staff of collaborators.

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## Plethora of Doctors.

There were 8,000 doctors in France in 1846, in 1901 they numbered 17,000 and in 1908, 22,000, a progression of 1,000 a year. This is terrible for the profession, for disease, and it is fortunate, has not increased in the same proportion. There were 7,507 students in medicine in 1906 and 8,426 in 1909. Many do not go on to a degree, but learn the occupations of carpenters and masons.—*Le Figaro*.

The Academy of Medicine, Toronto, opened for its season's work on the evening of the 5th of October. Dr. McPhedran delivered the presidential address. Following this Dr. W. P. Caven read a paper on diagnosis of gastro-duodenal ulcer. Dr. C. F. Hoover, Cleveland, Ohio, dealt with the medical treatment, and Dr. Ingersoll Olmsted, Hamilton, with the surgical treatment. Amongst those who discussed these papers were Dr. A. McKinnon, Guelph; Dr. Arnott, London, and Drs. H. A. Bruce, A. Primrose, N. A. Powell, H. B. Anderson, Warner Jones, and W. H. B. Aikins, Toronto. Other out-of-town medical men present were Drs. Hoig, Oshawa; H. Howitt and Peter Stuart, Guelph.

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The President of the American Gynecological Society has appointed a committee to report at the next annual meeting in Washington on the "Present Status of Obstetrical Teaching in Europe and America," and to recommend improvements in the scope and character of the teaching of obstetrics in America. The committee consists of the Professors of Obstetrics in Columbia University, University of Pennsylvania, Harvard, Jefferson Medical College, Johns Hopkins University, Cornell University and the University of Chicago. Communications from anyone interested in the subject will be gladly received by the chairman of the committee, Dr. B. C. Hirst, 1821 Spruce St., Philadelphia, Pa.

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### **Ontario Medical Council.**

The following candidates have passed the final examination of the College of Physicians and Surgeons of Ontario: J. E. Bromley, Percy G. Brown, Caroline S. Brown, F. W. Cays, W. G. G. Coulter, Henry Cresweller, Fred R. Chapman, John L. Campbell, I. D. Cotnam, R. D. Dewar, J. H. Downing, R. E. Davidson, Henry William Feldhans, H. J. Ferguson, R. E. Gaby, G. P. Howlett, Thomas J. Johnston, D. A. Kearns, H. H. Moore, W. D. McIlmoyle, R. W. MacIntyre, W. A. Macpherson, W. E. Ogden, T. S. Orr, R. H. Paterson, R. S. Richardson, Estella O. Smith, James Thomson, Charles R. Totton, W. C. Usher, F. W. Wallace, C. B. Ward, C. C. Whittaker, H. A. Williams.

### **INTERMEDIATE EXAMINATIONS.**

The following candidates have passed the intermediate examination of the College of Physicians and Surgeons of Ontario; J. E. Bromley, Caroline S. Brown, John A. M. Campbell, F. W. Cays, W. G. G. Coulter, Henry Cresweller, F. R. Chapman, John de L. Campbell, I. D. Cotnam, R. D. Dewar, John H.



Downing, Alexander Ferguson, R. E. Gaby, D. A. Kearns, R. W. MacIntyre, H. H. Moore, W. A. MacPherson, C. J. McBride, W. E. Ogden, T. S. Orr, R. H. Paterson, James N. Richards, R. S. Richardson, James A. Simpson, Estella O. Smith, James Thomson, Charles R. Totton, W. C. Usher, F. W. Wallace, Charles B. Ward, C. C. Whittaker, L. B. Williams.

#### PRIMARY CANDIDATES.

The following candidates have passed the primary examination of the College of Physicians and Surgeons of Ontario: J. E. Bromley, Caroline S. Brown, F. R. Chapman, John L. Campbell, I. D. Cotnam, R. D. Dewar, John Henry Downing, George D. Fripp, R. E. Gaby, J. J. Healy, R. A. Ireland, L. P. Jones, D. A. Kearns, H. C. Mabey, Victor McCormack, James F. McKee, Claude Allison Patterson, Geo. B. Rose, R. W. Tennent, Jas. C. Watt, C. R. Wilson, Catherine F. Woodhouse.

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## Personals.

Dr. E. Herbert Adams returned from his European trip to Toronto October 17th.

Dr. R. B. Harris, Huntsville, has been appointed an associate coroner for the District of Muskoka.

Dr. T. G. Roddick sailed from Hamburg to New York October 3rd and reached Montreal October 13th.

John D. Rockefeller has contributed twenty-four million dollars to the University of Chicago since its founding.

Dr. Arthur W. Mayburry, 569 Spadina Avenue, returned from Europe in the latter part of September and resumed work October 1st.

Dr. Charles Sheard, Medical Health Officer of Toronto, started for Richmond, Va., October 17th, to attend the annual convention of the American Public Health Association.

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## Obituary.

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### WARREN D. SPRINGER, M.D.

Dr. W. D. Springer, of Boise, Idaho, died suddenly October 19th, aged 45. He formerly lived in Nelson, Ont., and received his medical education in Trinity Medical College, Toronto, graduating from Trinity University in 1889.

## THE LIFE AND DOCTRINE OF SEMMELWEIS.

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It is fitting now that the eyes of the medical world are turned upon Budapest that fresh honor should be paid to the memory of one of her greatest sons, Ignaz Phillip Semmelweis, who was born in the Hungarian capital in 1818. The opportunity occurs in a careful and interesting account of Semmelweis' life-work, which has been published recently by Sir William J. Sinclair. In spite of certain other claims, Tiberius von Györy, in his criticism of the biography by von Waldheim, has made it quite clear that the man who first proclaimed the etiological principles underlying child-bed fever was a true Hungarian, although it was in Vienna that he arrived at and announced his discovery. It was in 1840, a few years before Semmelweis was appointed first assistant in the Obstetric Clinique, that the Lying-in Hospital in Vienna was enlarged and divided into two parts, one reserved for midwives and the other for medical students. This seemingly unimportant fact ultimately became one of the chief factors in the proof of the doctrine of Semmelweis. At this time the theories as to the etiology of puerperal fever were exceedingly numerous and of the most varied description. According to the most generally accepted doctrines there were two main factors at work, one internal, depending upon the condition of the organism, and the other external, acting from without. Among the latter were enumerated suppression of the lochia, milk fever, an unknown something producing a specific primary change in the blood, a cosmic atmospheric telluric influence, and a contagion of unknown character, which was largely believed in in this country. Happily here it was considered that this contagium could be destroyed, and this produced a remarkably effective prophylaxis. Another view was that the peculiar local anatomical conditions of the sexual organs brought about by pregnancy and parturition produced a *locus minoris resistentiæ*. Among all this confusion of thought it was probable that Semmelweis began his duties as assistant in the Obstetric Clinique of Vienna as a "milk fever" epidemicist under the influence of the teaching of his superior, Klein. But in the light of his rapidly increasing experience it was not to be expected that an intelligence such as that of Semmelweis, with a complete want of reverence for the *verba magistri* and with the capacity for going straight to the heart and relevant parts of a question, would regard with complete indifference the frightful mortality from child-bed fever which prevailed in the lying-in hospital at that

time. In the first division attended by students the mortality was 9.9 per cent., and three times as great as in the second division attended by midwives. There were no differences in the surroundings or the treatment of the patients which could explain this striking difference in the dangers of the two divisions. It was impossible to imagine that any of the causes so readily accepted by the majority of obstetricians could account for the mortality or its variations. Why was it that the patients in the first division who had had a tedious first stage, and especially the primiparæ, suffered so much from puerperal fever, whereas no such predisposition to the disease was perceptible among those in the second division? Yet it seemed that not only were the women attended by midwives much less likely to acquire puerperal fever, but that the condition was of very rare occurrence among those women who were admitted into the hospital after labor was completed and among those confined prematurely. In 1846 the mortality was terrible, amounting as it did to 443 deaths among 3,000 patients, or 14.5 per cent. A commission appointed by the authorities to consider this appalling mortality reported that it seemed to be due "to epidemic causes with unusual characters." In a state of depression and despondency caused by the sight of the fearful mortality all around him, for which in vain he sought a cause, we find Semmelweis writing: "Everywhere questions arose; everything remained without explanation; all was doubt and difficulty. Only the great number of the dead was an undoubted reality."

It was not until 1847 that the death of his friend Kolletschka from acute septic poisoning gave him the clue to the enigma. "In the excited condition in which I then was," says Semmelweis, "it rushed into my mind with irresistible clearness that the disease from which Kolletschka had died was identical with that from which I had seen so many hundreds of puerperal women die. Day and night the vision of Kolletschka's malady haunted me, and with ever-increasing conviction I recognized the identity of the disease from which he died with the malady I had observed to carry off so many lying-in women. The cause of the disease in the case of Kolletschka was cadaveric material carried into the vascular system. Did, then, the individuals whom I had seen die from an identical disease also have cadaveric matter carried into the vascular system? To this question I must answer, Yes." And so Semmelweis found the solution of the problem. It was the fingers of the students and of the teachers themselves who passed straight from the post-mortem room to the lying-in wards that carried the infection, and thus



was explained at once the difference in the mortality of the two divisions.

But events soon occurred which showed that it was not only cadaveric particles which could be sources of infection. The infection of a number of women from a patient suffering from carcinoma of the uterus and from one with a suppurating knee-joint showed that it might be derived from any decomposing animal organic matter. Now, in the autumn of 1847, was the discovery of Semmelweis complete and the doctrine firmly established in his own mind. It amounted to this, that puerperal fever was caused by a decomposed animal organic matter conveyed by contact to the pregnant, parturient, or puerperal woman whether from the cadaver or from a living person affected with a disease which produced a decomposed animal organic matter. For Semmelweis this was the eternally true doctrine of puerperal fever, as Sir William Sinclair says, and utterly true it has remained to the present day. But it was a long time before the truth was to prevail, and from this time on begins the tragic and melancholy history of the hatred and jealousy among many of his contemporaries which Semmelweis and his doctrine aroused. It is now matter of common knowledge that by the observation of cleanliness and by the use of chlorinated lime as an antiseptic Semmelweis was able very markedly to diminish the death-rate from puerperal fever in his wards. That he was not able to eliminate it altogether is not surprising when we remember the disadvantages under which he labored. The lying-in wards were insanitary, overcrowded, and unprovided with even a sufficiency of linen. Ignorance and prejudice were rampant among the students and midwives, and the open hostility and jealousy of his senior, Klein, added to the difficulties. With indomitable courage Semmelweis carried on the fight. Secure in an unshakeable belief in his own doctrine, convinced that in the end the truth must and would prevail, he fought with a degree of courage and a tenacity which prove him to have been one of the noblest characters in the history of medicine. The story of the reception the doctrine met with is humiliating and pathetic, and it loses nothing of its pathos in the graphic account of Sir William Sinclair. It is true that by some obstetricians of note, such as Tilanus, of Amsterdam, and Michaelis, of Kiel, it met with a sympathetic and ready acceptance. But it was far otherwise with the majority of obstetric teachers. It is difficult at the present day to understand the petty jealousy and animosity which allowed men of note in their own profession wilfully, as it only too often appears, to reject

the teaching of Semmelweis in view of the brilliant results obtained by him, and to continue in the old path of ignorance and indifference. Little wonder is it that in later years Semmelweis lost patience, as he showed so strongly in the open letter to Seanzoni, always one of his most bitter and prejudiced opponents. When we remember that among the disbelievers were such men as Carl Braun, Veit, Kirvisch, Breisky, Hecker, Zipfel, and even for many years von Winckel and Virchow, it is little to be wondered at that he lost both his patience and his temper. It was not until 1860 that he published his *magnum opus* on "The Ætiology of Puerperal Fever," one of the most important works ever published in medical literature. To use a much-abused expression, this work was "epoch-making," but unhappily it attracted but little attention and met with much hostile criticism.

It is interesting to note, and an honorable thing to recall, that the doctrine of Semmelweis was accepted with more cordiality in Russia than in almost any other country. The history of its reception in this country is not one that does much credit to the British school of obstetricians. It was first proclaimed by the late Dr. Routh, who had been to Vienna and followed Semmelweis' practice. Communicated by letter to Simpson by one of Semmelweis' friends, it elicited a reply from that great clinician which showed that he did not clearly appreciate the difference between the theory of contagion, at that time widely held in Great Britain, and the doctrine of Semmelweis. However, to his credit be it noted, in after years he made ample reparation, and it was largely owing to the teaching and example of the Edinburgh school that the doctrine so quickly found acceptance in this country. Unfortunately, later the teaching lost ground, and the chaotic state of opinion in England was well illustrated by the discussion on the subject which took place in the year 1875 at the Obstetrical Society of London, fifteen years after the publication of Semmelweis' great work. Within a few years of the appearance of his book Semmelweis gave up any further attempts to take part in the controversy about his doctrine and devoted his attention to gynecology. Apparently he was the first operator to perform ovariectomy in Hungary. He was, however, not destined to live much longer, and, unhinged by the trials and sorrows of his arduous life, his mind gave way, and in July, 1865, he was committed to an asylum. Immediately after his admission a septic wound of the right hand was discovered, and, despite all care, he died, like his friend Kolle-tschka, from the disease to the prevention of which the whole of his life had been devoted. It is impossible to read this book by

Sir William Sinclair—a work which we commend warmly to our readers' attention—without being overwhelmed with a deep feeling of sympathy for the sorrow which finds expression in the pathetic Nachwort which Semmelweis wrote to the "Ætiologie": "When I, with my present convictions, look back upon the past, I can only dispel the sadness which falls upon me by gazing into that happy future when within the lying-in hospitals, and also outside of them, throughout the whole world only cases of self-infection will occur." We may well conclude with the eloquent words of his biographer, Bruck: "The great revolution of modern times in obstetrics as well as in surgery is the result of the one idea that, complete and clear, first arose in the mind of Semmelweis, and was embodied in the practice of which he was the pioneer. When we with just satisfaction contemplate and enjoy the achievements which bring us nearer to Fortune's full fruition, every time must the name of Semmelweis be uttered with grateful recognition."—*Lancet*.

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### The Budapest Medical Clubs and the Semmelweis Cup.

Apart from the medical societies of Budapest there are in the city two medical clubs for social purposes, called respectively the "Medical Club" and the "Medical Casino." The former is apparently the more staid of the two, and counts among its members most of the University professors and senior members of the profession. The latter is more especially the general practitioners' club. The most treasured possession of the Casino is the Semmelweis cup. The cup, which is of oxidised silver set with amethysts and other stones, and which stands about a foot in height, was subscribed for by members of the Casino some four years ago to perpetuate the memory of the great teacher of the infectiousness of puerperal fever. Each year a banquet is held and the cup is emptied to the memory of some prominent member of the profession who has died during the year. The chair is taken by one of the leading medical men in Budapest, who delivers an oration, and whose name is then inscribed on the cup.—*Lancet*.



## Book Reviews.

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PUBLICATIONS IN MEDICINE AND NATURAL SCIENCE. Illustrated. Catalogue by Messrs. J. & A. Churchill, 7 Great Marlborough Street, London, Eng.

This book contains the advance notices of all the medical publications of this firm. It is well worth perusal, as it allows one to keep in touch with the most recent publications in the many branches of medicine and surgery. A copy of the catalogue will be sent on application.

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A THEORY REGARDING THE ORIGIN OF CANCER. By C. E. Green. Second Edition. Edinburgh and London: Wm. Green & Sons. 1909.

In a monograph of 46 pages Green attempts to prove, by analogy with the plasmodiophora brassicae, that cancer is due to a fungoid organism, which is fostered by the presence of sulphuric acid. Although his conclusions are hardly warranted by the facts he gives, yet the book is worth reading.

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A TEXT-BOOK OF PRACTICAL THERAPEUTICS. With especial reference to the application of remedial measures to disease and their employment upon a rational basis. By Hobart Amory Hare, M.D., Professor of Therapeutics in the Jefferson Medical College of Philadelphia. Thirteenth edition, thoroughly revised. Octavo, 951 pages, with 122 engravings, and 4 full-page colored plates. Cloth, \$4.00 net; leather, \$5.00 net; half morocco, \$5.50 net. Philadelphia and New York: Lea & Febiger. 1909.

This ingenious and highly useful work has come to its thirteenth edition, and as the preceding issues have gone through many printings, the degree of favor bestowed upon it may be appreciated. The author devised a wholly new plan in creating it, and has since had a dozen opportunities of perfecting it, which he has not neglected. He divides the subject between four parts, taking up in the first the general principles underlying all therapeutics. In the next he covers all drugs of value, giving all the information needed either by the student or the practitioner. Then he takes up the scarcely less important non-medicinal reme-

dial measures, including foods for the sick, and finally, in the last half of the book he considers the various diseases and their best treatment. The parts are alphabetically arranged and carefully cross-referenced so that all information on any point is instantly at command. Besides a dose table the work includes two indexes, one of drugs and the other of diseases and remedies with annotations, a most useful and suggestive repertory for the physician. It goes without saying that such a work is always brought to date with each new edition.

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THE OPEN AIR OR SANATORIUM TREATMENT OF PULMONARY TUBERCULOSIS. By F. Rufenacht Walters, M.D., B.S., M.R.C.P., F.R.C.S., Physician to the Crooksbury Sanatorium; Formerly Physician to the Mount Vernon Hospital for Consumption and Diseases of the Chest. London: Bailliere, Tindall & Cox, 8 Henrietta Street, Covent Garden. 1909.

One of the questions often asked of a physician is: "Where can I get a book to tell me of the fresh-air treatment of tuberculosis?" Dr. Walters has helped us in a very great measure, for he has succeeded in writing a volume for both the medical and the layman, one which is helpful and instructive on every page, because from the pen of a man who draws from a wide experience. It is a book to fill a long felt need.

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A MANUAL OF OTOTOLOGY. By Gorham Bacon, A.M., M.D., Professor of Otology in the College of Physicians and Surgeons, Columbia University, New York. With an Introductory Chapter by Clarence J. Blake, M.D., Professor of Otology in the Harvard Medical School, Boston. New (5th) edition, thoroughly revised. 12mo, 500 pages, 147 engravings and 12 plates. Cloth, \$2.25 net. Philadelphia and New York: Lea & Febiger. 1909.

Bacon's book is so well known to practitioners that it is hardly necessary for us to emphasize the fact that it has no equal in the English language. This new (5th) edition contains some new plates, and is thoroughly revised to bring it up-to-date. Medical men in general practice will find this exactly what they need.

## Selections.

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### Infantile Spinal Progressive Atrophy.

At the Gesellschaft für Innere Medizin, Popper presented two sisters, aet. 4 and 2 respectively, who seemed to be suffering from the Hoffman-Werdnig disease, viz., progressive muscular atrophy in the young. According to the mother's story the children were healthy and active when they were born; no apparent weakness about legs or arms. About six months after birth the movements of the legs and arms began to get gradually weaker, commencing in the legs. Through length of time it extended over the entire body, the limbs becoming quite helpless, and the child being unable to sit up without support. At first, never having learned to walk, the legs remained thick, but soon became emaciated. Their present condition may be recorded thus: The elder fairly well nourished for its age, the cranium normal, the brain and cerebral nerves in the same condition. The younger, two years old, was soft and flabby, with apparent fatty degeneration of the cellular tissue, so that the muscles of the extremities, which were certainly atrophied, could scarcely be felt. In consequence of the weakness the child could scarcely raise its hand to its mouth. The left arm at the shoulder-joint was quite loose, and could be bent far beyond the normal range; there were no contractions or fibrillary vibrations. The child, when placed erect, bent convexly towards the spine, the thorax crushed together and the head had to be held up. The muscles of the shoulders, back and pelvis were distinctly atrophied, while the lower extremities were in the same condition. There was no hypertrophy present, and both feet assumed the equino-varus position. There was no tendon reflex, and degenerative reaction was obtained by the electric current. The sphincters were normal, sensibility undisturbed, and the intelligence active. The elder, a girl, aet. 4, had a similar condition, but from the history it appeared to be more protracted in its approach than in the younger. There were still slight contractions to be obtained in the lower extremities, which were held in the bent position.

These symptoms seemed to agree in every particular with Hoffmann's and Werdnig's recorded cases under "Chronic spinal muscular atrophy having a congenital basis," or what they preferred later to designate "Premature infantile progressive spinal muscular atrophy."—Correspondent *Press and Circular*.



**Corpora Lutea.**

For therapeutic purposes the corpus luteum verum from the ovary of cows is used. This is usually found near the surface of the ovary after fertilization, and is formed by alterations in the empty follicle. The yellow color of this organ or of the middle part of it—the color to which it owes its name—is said by Benkiser to depend not on an alteration of the coloring matter of the blood, but on fatty infiltration of the cells.

The use of corpora lutea was suggested by Lebreton for the treatment of disturbances during pregnancy. He assumed that these disturbances were due to autointoxication, which was caused by a functional insufficiency of the corpora lutea. He therefore administered these organs in a dry state in doses of 0.05 grm. (gr. 5-6) twice a day to gravid patients who complained of vomiting, nausea, a sensation of choking, palpitation of the heart and flushings. The immediate result was the cessation of the vomiting, while the other troublesome symptoms were very rapidly relieved and a complete cure was effected in all cases after 14 days.

L. Fränkel regards the corpus luteum as a gland with an internal secretion; he credits the organ with the function of supplying the uterus with nutritive impulses in a cyclical manner. These impulses prevent the uterus from reverting to the infantile state or from passing into the senile state. Further, the uterus is said to be prepared by the activity of the organ for the reception of the fertilized ovum. The latter is then aided in its development by the secretion. Should the ovum fail to become fertilized, the secretion then causes menstruation to appear.—*Merck's Annual Report*.

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**Glandulae Prostatae Siccæ.**

This preparation is obtained from the prostate glands of bulls. It is a greyish-yellow powder, one part of which is equivalent to six parts of the fresh organ. The tablets obtained by compressing the dry powder are equivalent to 0.125 grm. (gr. 2) of the dried substance or to 0.75 grm. (gr. 12) of the fresh gland.

E. Reinert made use of the experience which has been obtained in thyroid hypertrophy by the use of thyroïdin. He used the analogous treatment in hypertrophy of the prostate. After administering prostate substance for several weeks he obtained a very favorable result in two cases, for both the subjective and the objective troubles improved considerably. J. Englisch also, in his observations on recent methods of treating hypertrophy

of the prostate, obtained in two of the five cases treated by him a decrease of the urinary sediment, freer micturition, less strangury, diminution and softening of the prostate gland; in the less severe cases, with or without residual urine, so long as the urine remains normal, he recommends the regular evacuation of the urine and palliative treatment as well as feeding with prostate.

Bazy, Arnozan and Oraison also obtained very satisfactory results. The latter treated seven cases of prostate hypertrophy, in all of which there was retention of urine. In five of the cases a decided improvement was observed, while in one case only slight improvement occurred, and in another case the treatment was without effect. According to these reports the use of prostate substance in hypertrophy of the prostate is worthy of consideration as a promising measure.

H. Oppenheimer after the above-mentioned good results endeavored to treat chronic prostatorrhœa with prostate substance and found that its internal administration led to rapid and permanent alleviation of this trouble, provided no gonococci were present. This treatment is not indicated in the presence of gonococci in the secretion. Further, the treatment must be immediately discontinued whenever gonococci appear in a discharge which was at first thought to be free from gonococci. Where the prostatic affection is complicated with posterior urethritis the internal treatment may be tried, but must be relinquished if the specific prostate signs do not diminish considerably within a week.—*Merck's Annual Report*.

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### **Pulmones Sicci.**

The introduction of lung substance into therapeutics must be attributed to F. Brunet. In his experiments on rabbits with lung extract applied subcutaneously, this author found that it possesses a tonic action in small doses, while in larger doses it has a poisonous action. The pharmacological trials on experimental tuberculosis led to the result that lung extract may serve as a useful auxiliary remedy in the treatment of phthisis. For this reason Brunet decided to use the preparation in man. In 10 published cases of chronic bronchitis and emphysema, chronic and acute tuberculosis, advanced pulmonary and laryngeal phthisis, etc., this treatment led to an appreciable improvement in the condition of the patients, and Brunet therefore regards this treatment as justified in all chronic diseases of the lungs and the diaphragm, such as chronic bronchitis and pneumonia, asthma, emphysema, fibrinous and purulent pleurisy, abscess of

the lung, chronic tuberculosis. Brunet injected lung extract prepared according to Brown-Séquard's formula, in doses of 3—5 c.c. (m 48—80) subcutaneously, or else he gave 10 c.c. (m. 160) of the juice with a little water in the morning on an empty stomach. X. Arnozan confirms the good results of lung substances in these diseases, except in tuberculosis. E. Cassaet observed only a transient improvement and a favorable action on the general condition in phthisis. Grande gave a phthysical patient a dose of 4—5 grm. (gr. 60—75) of the dried organ daily for 5 months, with the result that the fever left off, the sweats and expectoration ceased and the weight increased. This author also performed experiments on animals which led to the conclusion that this application of organotherapy is of use and is worthy of extended investigation. Dried lung substance is prepared for therapeutic purposes from the lung parenchyma of young healthy sheep. The average dose is 5 grm. (gr. 75) daily.—*Merck's Annual Report*.

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### **Acidum Pyrogallicum.**

Pyrogallol has obtained, with some other remedies, a popular place in the treatment of lupus vulgaris, and the new methods of treatment by Röntgen and Finsen rays cannot completely displace it. Very favorable experiences with this drug are described by F. Veiel, who confirms the observation that pyrogallol destroys the lupoid tissues without damaging the healthy tissues. Upon this observation he bases his method of treatment, which is worthy of further trial.

For the purpose of destroying the lupoid tissues, a 10% pyrogallol-vaseline is used; this is applied for several days. Only very hypertrophic patches of lupus necessitate treatment by thermocautery and by caustic potash. The ointment is allowed to act for several days until vesication has occurred, when weaker ointments are used in its place. The lupoid tissue is destroyed, but granulation is not interfered with. The author recommends a 2% pyrogallol ointment for this purpose. The application of this is continued until all the tissues have peeled off in which there is a suspicion of lupus, until the red granulations no longer contain any grey granules (this frequently takes weeks). When this stage is reached the ointment used is made gradually weaker and weaker until the proportion of pyrogallol is only 0.1%. The use of this ointment is then continued until the cure is complete. It occasionally happens, however, that even this very weak ointment prevents the formation



of epithelium: in such cases pure vaseline is used, when cicatrization quickly follows in most cases. The method, therefore, consists in destroying the lupoid tissues by pyrogallol, and then allowing the wound to heal under the action of pyrogallol.—*Merck's Annual Report.*

### Urticaria.

Van Harlingen, in his new text-book, recommends the following for urticaria:

Ext. Belladonnæ.....	grn. 1-60 - 1-30
Ergotini .....	grn. i
Quininae Hydrochloridi .....	grn. i

Ft. pil. No. 1. Sig.: Two of these pills may be taken every two hours until there is relief or until physiologic symptoms are marked.—*Chicago Clinic.*

### Indications of Lumbar Anesthesia.

Professor L. Rehn (*Mit. a. d. Grenzgeb. d. Med. u. Chir.*) advises restriction in the use of spinal analgesia, which should never be considered as the method of selection. In comparison with general anesthesia, it is more suitable for older persons and less for children and younger adults. The contraindications comprise purulent processes, arteriosclerosis, disturbances of the central nervous system, and perhaps also extensive tuberculosis. Introduction of the needle between the first and second lumbar vertebrae is to be avoided on account of the risk of injuring the cord.—*International Journal of Surgery.*

### Veronal-Sodium as Hypnotic.

W. H. Becker believes veronal-sodium to be superior to veronal itself, in that it is readily soluble in water. It is therefore more easily absorbed, and can also be given per rectum where oral administration is not possible or is contraindicated. Becker has tried the salt on a large number of mental cases, and finds that it compares very favorably with the older hypnotics, even where there is a pronounced state of excitation. With an average dose, the drug failed in only 13 to 14 per cent., as compared with 27 to 28 per cent. in cases in which chloral, amylene hydrate, and paraldehyde were used. Even when given per

rectum, the action was generally prompt and satisfactory, though sometimes the absorption was delayed so that the patients complained of sleepiness the following day. The author therefore recommends the use of veronal-sodium in place of those mentioned, especially if some tolerance to these has developed or their toxic effects are to be avoided, as in co-existing cardiac trouble. Clysmata are of use where drugs by mouth are refused and where injections of hyosine and morphine or of duboisine are no longer effective.—*Therap. Monatshefte.*

### Pruritus Vulvae.

The following combination is highly recommended by Beall as having good results when all other means had failed:

Mentholis .....	grn. viij
Quininæ Sulphatis .....	grn. xx
Acidi Carbolicæ .....	grn. xxiv
Ichthyoli .....	ʒiiss
Lanolini .....	ʒvj
Ol. Ricini .....	ʒx

M. et ft. ung.

Sig.: Apply freely after washing the parts with hot water.—*Amer. Jour. Clin. Med.*

### Inoculations for Acne.

It is reported that in St. Mary's Hospital, London, injections of vaccines of the staphylococcus (upon the basis of Wright's opsonic theory) are being made with excellent results in the eradication of acne pustules; muddy, blotchy complexions are said to be thus transformed into healthy skin, the best results being obtained in acne due to sluggish action of the sebaceous glands. The vaccines are manufactured in the Hospital laboratory, and are supplied in glass bulbs, one of which suffices for three or four injections. Such treatment is, we believe, scientifically sound. The only trouble with the Wright procedures have been their intricacy and the length of time required for individual examinations.—*Medical Times.*

## Miscellaneous.

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### Rules for Patients of the Henry Phipps Institute for the Study Treatment and Prevention of Tuberculosis.

1. Don't spit on the pavement, on the streets, nor into any place where you cannot destroy the germs which you spit up.
2. Do not swallow any spit which comes up from your lungs or which comes out of the back part of your throat.
3. Spit into a cup when it is possible to do so.
4. Always use a spit cup with a handle to it so that you can hold it close to your mouth.
5. When you use a china or earthenware spit cup always keep lye and water in it and scald out the spit cup once or twice a day with boiling water.
6. When you use a tin spit cup with a paper spit cup inside, burn the paper cup at least once a day and scald the tin cup with boiling water.
7. Never use a handkerchief or a rag or any material other than paper to spit in or to wipe your mouth with.
8. When you cannot spit into a spit cup, spit into a paper napkin.
9. Always use a paper napkin to wipe your mouth with after spitting, and be careful not to soil your hands.
10. Always carry a cheap paper bag in your pocket or caba to put paper napkins in which you have used.
11. When you have used a paper napkin, either to spit in or to wipe your mouth with, fold it up carefully and put it away in a paper bag.
12. Every evening, before going to bed, burn your paper bag, together with the napkins which you have deposited in it.
13. Do not let any spit get on your clothing or your lips and hands or your bed clothes or carpets or furniture, or on anything about you, wherever you may be.
14. If, by any accident, any spit should be deposited anywhere else than in your spit cup or in your paper napkin, take pains at once to destroy it, either by taking it up and putting it in the fire or by putting lye and water on it.
15. If you have a moustache or beard, shave it off or crop it close.
16. Always wash your lips and hands before eating or drinking, and rinse out your mouth.



17. If you have a running sore, take up the matter which is given off with absorbent cotton and burn it.

18. Avoid handshaking and kissing. These customs are dangerous to you as well as to others. They may give others consumption; they may bring you colds and influenza, which will greatly aggravate your disease and may prevent your recovery.

19. Do not cough if you can help it. You can control your cough to a great extent by will power. When you cough severely hold a paper napkin to your mouth so as not to throw out spit while coughing.

20. Sit out of doors all you can. If you have no other place to sit than the pavement, sit on the pavement in front of your house.

21. Don't take any exercise except upon the advice of your doctor.

22. Always sleep with your windows open, no difference what the weather may be.

23. Avoid fatigue. One single fatigue may change the course of your disease from a favorable one to an unfavorable one.

24. Go to bed early. If you are working, lie down when you have a few moments to spare.

25. Don't take any medicine unless it has been prescribed by your physician. Medicine may do you harm as well as good.

26. Don't use alcoholic stimulants of any kind.

27. Don't eat pastry or dainties. They do not nourish you and they may upset your stomach.

28. Take your milk and raw eggs whether you feel like it or not.

29. Keep up your courage. Make a brave fight for your life. Do what you are told to do as though your recovery depended upon the carrying out of every little detail.

30. Always keep in mind that consumption can be cured in many cases and that it can be prevented in all cases.

31. If your own disease is too far advanced for you to recover, console yourself with the idea that you can keep those who are near and dear to you from getting it.

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Every graduate in medicine has an ambition to possess a chunk of bromide of radium. Madame Curie says that she has not located more than about twenty grains of the wonder working salt. Anyone with forty or fifty thousand dollars of loose change may get a bit.—*Journal of Dermatology*.

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No. 12

## Original Communications.

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### RADIUM AND ITS ACTION IN CONNECTION WITH CERTAIN DISEASES OF THE SKIN.\*

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BY DR. W. H. B. AIKINS, TORONTO.

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Radium was discovered in Paris in 1898 by Prof. Pierre Curie and Mme. Sklodowska Curie in collaboration with M. Bemont.

In 1901 the action of radium was made manifest by a curious accident to M. Becquerel, who imprudently carried a small tube containing radium in his vest pocket for several hours. Fourteen days later the skin lying beneath the pocket where the radium had been resting was found to be in an acute state of inflammation, and M. Besmir attributed it to the action of the radium.

P. Curie then made a voluntary experiment on himself, and the experience was conclusive as to the burning action of the radium on the skin, and thinking that it would be found that the properties of radium had a distinct medical application he confided a sample to M. Danlos, physician to the St. Louis Hospital. This was the point of departure into a new branch of physiotherapy, and to-day the qualities of radium as a valuable therapeutic agent are fully established.<sup>1</sup>

As a result of earnest work and careful researches carried on with much patience by Dr. Louis Wickham, a trained scientist, a dermatologist of great note, physician to St. Lazare Hospital, Paris, and also at the surgical clinics of M. Cazin and M. Banzet, the Laboratory for Radium in Paris was established in 1905.

There are many workers who had been using radium before the establishment of this Laboratory, but a new era dawned when Dr. Wickham took charge of the work and brought his

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\* Read at meeting of the Section of Medicine, Academy of Medicine, Toronto, November 9th, 1909.

great scientific acumen to bear upon the investigations made personally and in collaboration with other competent observers. Through the principle of radium filtration much of the danger incident to its use has been eliminated, and since he has been able to regulate the rays acting on the tissues, the working basis has been more accurate, and in the hands of trained and competent men the value of this therapeutic agent has been placed on a firm basis. Dr. Wickham published his premier paper in the *Annals of Dermatology*, October, 1906, on "Some Notes on the Employment of Radium as a Therapeutic Agent."

In the spring of 1907 I had the opportunity of visiting the Laboratory, and found much of surprise and interest, and met Dr. Louis Wickham. He consented to write a paper for THE CANADIAN PRACTITIONER AND REVIEW, which was published in the September issue, 1907, on "The Use of Radium in Skin Diseases."

Again in 1908 I visited the Laboratory, where careful research work was being conducted, and where Dr. Wickham and Dr. Degrais had obtained unquestionable and durable cures.

At first Dr. Wickham undertook to observe thoroughly the effects of bromide of radium on epithelial tumors of the skin, on the superficial cancers of the eyelids, nose and ears, in tuberculosis of the skin and in lupus. In such cases he had encouraging results. But when he undertook the treatment of port wine stains, naevi, vascular tumors and keloids he obtained results little short of marvellous, the disappearance of the tumor, the return of the tissue to normal or almost normal color without the formation of cicatricial tissue and without the destruction of the integument.

In September of this year I again spent three weeks in Paris and once more availing myself of Dr. Wickham's courtesy, frequently visited the Laboratory, and observed the methods employed in treating the patients who crowded the waiting-rooms.

In the early days the apparatus employed was not entirely satisfactory, a tube being mostly used, but by a special varnish made by M. Danne the radium salt is now fixed on a flat metal plate or stiff linen. This varnish is permeable to all the radium rays and resists the action of mild heat, water and most anti-septic solutions, but may be destroyed by emersions in either alcohol or chloroform.

In form the metal plates are square or oblong, though the round ones were formerly used. Care is taken that each centimetre of surface has one centigram of the salt pure or diluted with barium sulphate so as to reduce the radioactivity.



This apparatus has a radioactivity of 500,000, with a centigram of 25% of bromide of radium, incorporated with barium sulphate on a centimetre surface.

It is important to know the force, quality and quantity of the rays which penetrate into the tissues. There are three distinct types of rays. The alpha rays constitute about 90 per cent. of all the rays, and are positively electrified particles. The beta rays, which are the most spectacular and consist of negatively charged particles resembling the cathode rays produced by an electric discharge inside of a highly exhausted vacuum tube, are divided into three classes, the soft, the medium and the hard. These rays are emitted in great preponderance. The gamma rays are few in number. They in many respects resemble very penetrative X-rays, are uninfluenced by magnetism, and pass in straight lines at great speed, and possess remarkable penetrative properties, being able to influence a photographic plate through a foot of iron.

The rays emanating from the apparatus may be modified in strength and character by the interposition of "screens" between the radium and the surface to be acted upon. These may be of aluminum, mica, lead, glass and black paper. Muslin is sometimes used as a protective covering, but what is better is rubber cloth, which satisfactorily protects the varnish surface from moisture and septic secretions. By means of these screens the alpha and beta rays may be cut off.

Using an apparatus such as I now show you, with the interposition of lead, sheets of paper, and tied up in rubber cloth, the surface may be irradiated by the gamma rays exclusively.

As screen<sup>2</sup> after screen of increasing grades of thickness and density is interposed, first the alpha and soft beta rays will be cut off and absorbed, then the medium beta, then the hard beta. Thus in each case the number of rays having the power to filter through the screens is in decreasing quantity. The rays in proportion to their number will have greater and greater powers of penetration; thus the quality of the radium is changed, because the average of its penetrative power is increased. As the rays diminish in number in proportion as the screens increase in thickness, it is easy to understand that the duration of the application must play a very considerable part, and that this duration must be increased in length in proportion as the rays are diminished in number, and from this fact the following three general rules of treatment can be deduced:

1. Apparatus applied naked. Rays numerous; special action on the surface; duration of application short.
2. Apparatus with interposition of medium filter. Rays less

numerous; action on a greater thickness of tissue; duration of application longer.

3. Apparatus with interposition of thick filter. Rays very few; action on a very great depth of tissue; duration of application very long.

As mentioned, the tubes were formerly much used. A modification of these tubes and the manner in which they are to be utilized has been perfected by Dr. Dominici. This series of tubes, when in their metal case, can be linked together in the form of a chain, or to appear star-like, or as a triangle or otherwise, and arranged so as to conform to the surface of the tumor to be treated. But the flat surface instrument is the one now used in the Paris Laboratory for application to cutaneous surfaces, and in order that the surface tissue of angiomatous tumors, swollen wine stains and other lesions to be acted on should not be injured, screens are employed as above noted to exclude the beta rays, which are apt to produce inflammatory action. With this end in view Drs. Wickham and Degrais devised several methods of procedure, among which is that of the "Feu Croise" or cross fire.

This method consists in applying to the tumor several apparatuses placed opposite to one another two by two, for a shorter time than that for which each of the apparatuses would cause a surface irritation. By this method all the rays act, both the very penetrating ones and those less so, with multiplication of the former and without surface reaction. The length of the application is reduced and also the duration of the treatment. The apparatus may be employed naked or covered with any of the series of screens as the requirements of the case demand.

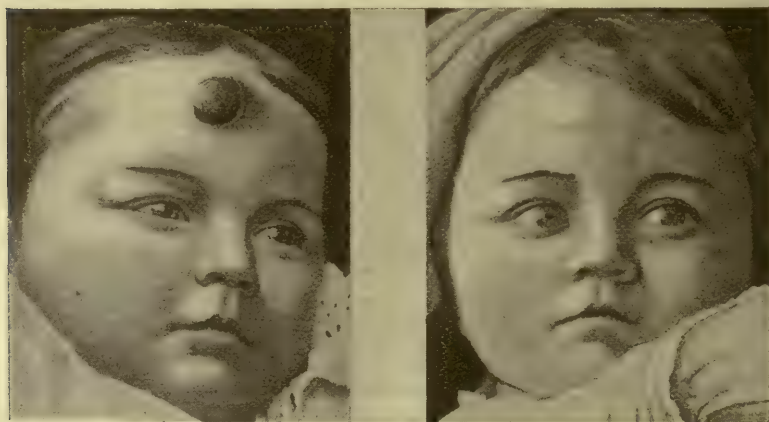


FIGURE 1.

Fig. 1.<sup>3</sup> This illustrates an angiomatic tumor on the forehead of a babe seven months old. It was soft, violet-red in color, full of blood. It could by pressure be reduced one-fifth in size, but pressure on the tumor caused pain, and when the child cried it took on a deeper color.

This tumor was treated by the "cross fire" method. The first treatment was made on 22nd March. On the 15th April a crust was forming at the periphery of the tumor, showing the result of inflammatory action. By the 3rd May the tumor had diminished to about one-half its size. Between the 6th and 30th of May nine further applications were made. During June and July radium was again used, and about the last of August the cure was completed.

Dr. Wickham writes:<sup>4</sup> "Frequently we combined this 'cross fire' method with the 'filtering' method, and by these means were enabled to witness the dissolution of tumors, the disappearance of the throbbing as well as the loss of color of the angioma, which, after their giving way, have sometimes retained a surface contrasting only slightly in tint with the healthy tissues in the same region.

"But the specific action of radium is not limited to cancerous and angiomatic tumors. There is another variety of tumors, the Keloidan, which also derive benefit from it. In fact, without visible reaction, enormous cheloids may be made smooth, and the truly turgid appearance of certain complicated scars made by keloids disappear, to be replaced by a flat, scarred surface, much easier to conceal. Moreover, the specific action of radium has caused much of the pain which ordinarily accompanies cheloids to disappear.

"Our later observations have merely strengthened our first conclusions. In fact, it is without determining the secondary inflammatory reaction that these affections must be treated. By applications of very short length, from one to three minutes a sitting, with a large and powerful apparatus, we found ourselves able to cure, without irritation, localized pruritus and superficial neuralgias, especially that which follows the shingles. Here is an example:

"A baby a year old was suffering from a bad case of pruriginous eczema, which, to its parents' great despair, had spread over its whole face and scalp. For six months without any success I treated it vigorously by the ordinary means. The baby cried without ceasing, and slept badly. I decided to use radium. M. Degrais applied our powerful apparatus of exterior radio-activity, 580,000 and six centimetres in diameter, on each place.



the first day for one minute and a half, and for the same time on the following day. A fortnight later the mother wrote us that her baby was completely well."



FIGURE 2.

Fig. 2.<sup>5</sup> This represents a large pigmentary tumor on the face of a child 11 years old. Its surface was ridged and of a yellowish brown color; it gave to the face a repulsive appearance. Application of radium was made for five hours on each place during three days. This produced an ulcerative reaction, which was followed by cicatrization. In two months the tumor had diminished fully one-half in size. Other applications were made for several hours on three consecutive days. Reaction was severe, but terminated rapidly. Additional applications had to be made from time to time. Three months after the completion of the treatment the tumor had entirely disappeared. The surface is now level and smooth, but there is some coloration of the tint of *café au lait*, and at two points the tissue is somewhat blanched.

Fournier<sup>6</sup> has been investigating the claims of Wickham and Degrais in regard to the complete cure of vascular naevi under the action of radium, and found that their claims are substantiated. He says that the cure of extensive naevi without a trace of disfiguring scars renders the method destined to supplant all other technics where the cosmetic effect is of importance. A slight ulcerative action seems to be required for flat superficial

naevi, while deeper ones require stronger action. Prominent projecting naevi are best treated by weak doses, frequently repeated, which act without inducing appreciable reaction. There is no destruction of tissue to leave a defect, but the tissues are modified and repair proceeds normally, leaving a smooth, regular surface, somewhat paler than the surrounding tissue, but otherwise normal. The naevus loses its color after the reaction, from six weeks to two months approximately. For angiomatous naevi the exposures are short but frequently repeated, with longer or shorter intervals of suspension at the first sign of reaction. The entire course of treatment in this form may require several months.

Nagalschmit<sup>7</sup> confirms the remarkable efficacy of radium treatment of naevi, which he asserts far surpasses in effect and convenience to the patient any other measure known. With pure 100% radium bromide a flat capillary naevi is exposed from five to six minutes, cyanotic naevi ten minutes, and protuberant naevi from fifteen to twenty. After nine days a brownish pigmentation is noticed, with slight exudation and scab formation, followed by local infiltration and superficial desquamation for several weeks.

About the fifth week the naevus gradually assumes the characteristics of normal skin.

He does not mention that he had employed screens between the pure radium and the skin, and consequently the soft beta rays may have created a greater degree of inflammatory action than would have occurred had the Wickham method been adopted.

Conditions which have been cured or benefitted by radium are numerous. Epithelial cancers, superficial ulcerative or non-ulcerative epitheliomas with dry surface, cutaneous ulcerations which show the character of malignancy and a tendency to extension—rodent ulcer—epithelial cancers which have undergone large surface ulceration, cancers of the mucous membrane, keloids, angiomatous tumors, pigmentary naevi, tuberculosis of the skin, eczemas, psoriasis, angiokeratoma, lichen planus, acne rosaceae, syphilis, varicose ulcers, papilloma, vegetations. In lupus also some appreciable advance has been made.

Radium has also been used with benefit in certain cases of exophthalmic goitre, and the gynecologists of Paris are now making use of it in selected cases of cancer, uterine fibroids, uterine hemorrhages and metritis.

Radium may be said to rank as a "specific" in a certain

sense, because erratic cell growths which constitute some types of tumor tissue are particularly susceptible to the influence of the rays.

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## REFERENCES.

1. Radiumtherapie par le Dr. Louis Wickham et le Dr. Degrais.
2. From address delivered at Belfast by Dr. Wickham. *Br. Med. Jl.*
3. *Revue de Medicine.* Wickham et Degrais.
4. Drs. Wickham and Degrais. *Can. Pract. and Review*, December. 1908.
5. Radiumtherapie. Wickham et Degrais.
6. Vascular naevi. *Bulletin de l'Academie de Medicin*, Paris (*J. A. M. A.*)
7. Therapie der Gegenwart, 1909 (*J. A. M. A.*)

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## CANCER OF TONGUE—RADIUM TREATMENT.

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BY EDMUND E. KING, M.D., TORONTO.

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In reporting the following case of malignant disease of the tongue treated by radium, I feel that it is due to the profession to state that in these early cases the treatment was not carried out in the same scientific manner that it is to-day. The different rays were not well recognized, nor the means of isolating one or other well known until within a very short time, consequently treatment was advantageous to the patient rather in spite of the fact of the use of all the different ray emanations than by selection of the proper ray.

In speaking of the treatment by radium it is well to appreciate the tremendous power that radium exerts. It is the only substance that is known to-day that is continuously parting with its component parts and yet not in any material or discoverable way lessening its power or bulk. It is seen under the Spenthariscope to throw out from a centre luminous bodies like meteoric showers, with an estimated velocity of 150,000 miles per second. It is very difficult for anyone to grasp any such figures as these, but, like the Roentgen ray, we are to understand that it is particles passing through the tissue lodging within it that produces the action that results in change from diseased tissue back to normal.

Briefly the case is as follows: J. W., aged 67 years, consulted me in reference to an ulcer on the left side of the tongue, which involved side of the tongue, floor of the mouth, and extended back to the fold of the palate, which was surrounded by a very hard edge, and evidently had been aggravated by a necrotic tooth. The sub-lingual gland was enlarged on that side to about the size of a large bean. I excised a small portion and had it examined, when it was reported as cancer. The extent of the growth, the involved floor of the mouth and the enlargement of the lingual gland, made it a case unsuitable for operation, but it appeared to me to be one very suitable for radium treatment. I had in my possession a tube of radium, the exact activity of which I cannot give, and began treatment with this at five minutes per sitting every other day for three times, then five minutes every day for ten times. By this time a change was noted in the anterior portion of the growth. The treatment was suspended for a week, and then resumed for five minutes

morning and evening for ten days, with marked improvement. The patient then passed out of sight for nearly a month, considering himself cured. The tongue had become supple, no disagreeable effects while eating, and during the period he resumed smoking rather in excess. I found that the greater portion of the ulcer had healed, but there still remained that very inaccessible portion around the palatal fold. Here we had considerable difficulty in holding the tube in place, but by perseverance we were able to fairly well accomplish this. I gave ten minutes twice daily for a week, and then twenty minutes twice daily for two weeks, with the result that a marked improvement continued. At this time the patient had the misfortune to break the tube of radium, and further treatment was suspended.

While this case cannot be recorded as a cure, it is reported as one showing a marked improvement under treatment. I have recently been able to procure another tube of radium, and may, if any portion of the growth remains, resume treatment.

## DIAGNOSIS OF GASTRO-DUODENAL ULCERATIONS

BY W. P. CAVEN, M.D., TORONTO.

By gastro-duodenal ulcerations I mean those forms of "simple ulcer" which are met with where the gastric juice flows, therefore situated at the extreme end of the esophagus, in the stomach, or in the duodenum above the entrance of the common bile duct.

*Age.*—Ulcer of the stomach is a disease of early adult and middle life, the majority of cases occurring between twenty and forty years of age, while the greatest mortality is found between forty and sixty.

Nearly all observers are agreed that women suffer more in this respect than men, or at least that a larger number of women come under notice for treatment. Brinton says two to one.

Duodenal ulcer is found to be most frequent between the ages of thirty and forty, but in this particular form of simple ulcer the majority of cases seem to occur amongst men.

It is instructive to note the relative frequency of occurrences of gastric and duodenal ulcers. I quite well remember in my student days regarding duodenal ulcer, apart from those following burns of the skin, as a great medical curiosity, whereas at every outdoor clinic we expected to see at least one case of gastric ulcer; but we now know, thanks to more careful clinical and laboratory methods, and to some extent to the surgeons, that duodenal ulceration is by no means a rarity. In fact, it seems to occur almost as frequently as gastric ulcer.

Thomson, of Edinburgh, in his report on fifty cases operated on for chronic ulcer, found twenty-two in the duodenum and twenty-eight in the stomach, and in the Mayos cases duodenal ulcer was met with perhaps a little oftener than gastric ulcer—98, 87.

In no disease have we more outstanding symptoms and physical signs than in many cases of gastric and duodenal ulcer. On the other hand, we see many cases where the signs and symptoms are very indefinite and the diagnosis may even only be forced on us by the occurrence of a grave accident, such as perforation or hemorrhage, or by the findings at the autopsy.

*Pain, vomiting, hematemesis and melena* may be regarded as the outstanding features of this trouble.

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\* Read at meeting of Academy of Medicine, Toronto.



## PAIN.

*Character of Pain.*—Pain in some form is the most constant symptom met with, occurring in probably 90% of all cases; this in early cases may be described simply as a feeling of weight or fullness, which becomes as the trouble goes on a gnawing and burning pain or a cutting or tearing.

*Time of Onset.*—A study of the *time of onset* of the pain in relation to the ingestion of food is of diagnostic value, and perhaps also of some value in locating the site of the ulceration. In the majority of cases of gastric ulcer the pain comes on very soon (5-10 minutes) after entrance of the food into the stomach, and remains during the period of gastric digestion, and then gradually subsides. If the ulcer affects the pyloric ring alone, the pain does not usually commence until 1—2 hours after taking food, and in duodenal ulceration from 2—4 hours after. On the other hand, in ulceration of the duodenum, the pain (hunger pain) is often immediately relieved by eating; the explanation of this usually given being that the taking of food causes the closing of the pylorus, and this shuts off the acid from irritating the ulcer. Thomson does not accept this view, but suggests that the empty stomach moving towards the centre line puts traction on the duodenum and this irritates the ulcer.

Sometimes in gastric ulcer, where there is hyperacidity, we will find the patient relieved of pain soon after taking food, especially if it be albuminous.

*Effect of different kinds of food on the pain.*—Large quantities of food, or the heavier, coarser foods cause much more pain in gastric ulcer than do bland foods; whereas the character of the food does not seem to make much difference to the sufferer from duodenal ulcer.

*Seat of the pain.*—In gastric ulcer, the pain is usually referred to the centre of the epigastrium, and also through to the back between the shoulders.

*Tenderness on pressure.*—On pressure, two spots of tenderness can usually be made out, the epigastric and dorsal. The dorsal is situated to the left of the 8—10 dorsal spine, and usually appears later than the epigastric pain.

In duodenal ulcer the pain is usually seated to the right of the zyphoid.

## VOMITING.

Vomiting is present at one or other times in a large proportion of cases; probably in 80%. It is, as one would expect, a more constant symptom of gastric than of duodenal ulceration.

In ulcer of the pylorus with contraction we find it a very constant symptom. The vomiting in these cases may be of the cumulative type, the patient vomiting at night all that has been taken in the previous 24 hours.

In gastric ulcer the vomiting usually occurs an hour or two after meals, when the pain is at its height, and, as a rule, the vomiting relieves the pain.

In duodenal ulcer the vomiting occurs at irregular intervals, with no special reference to time of eating, but very often in early morning.

#### HEMATEMESIS AND MELENA.

The escape of blood from the stomach or from the bowel is of strong diagnostic significance; perhaps 60% of cases of gastric and duodenal ulcer have vomiting of blood to a greater or lesser extent; the hemorrhage may be copious, the blood bright in color, arterial in origin, and quickly ejected from the stomach, or, again, the blood may present the character of the well-known coffee grounds, according to the length of time of its stay in the stomach and the consequent change in the hemoglobin by the Hcl.

On the other hand, the bleeding may be "occult," and the evidence of it only being detected after careful microscopic and chemical examination.

It is in a large measure due to these careful investigations that we have been able to more certainly diagnose ulcerated conditions. (Benzidin test.)

The escape of blood from the bowel, detectable by the naked eye or occult, is met with intermittently in perhaps half the cases of gastric ulcer, where vomiting of blood is a symptom; but the greatest percentage of hemorrhages from the bowel is met with in duodenal ulcer.

I have emphasized the intermittent presence of blood in the stools as being significant of simple ulcer as opposed to the constant occult hemorrhages in carcinoma.

#### EXAMINATION OF GASTRIC CONTENTS.

The presence in excess of free Hcl. is of great diagnostic significance. The presence of butyric and lactic acid is not of much significance; it is only an indication of stasis of gastric contents and not diagnostic of carcinoma.

The appetite is often not decreased, the patient taking less food by reason of the punishment that follows.

Constipation is frequently complained of.

## DIFFERENTIAL DIAGNOSIS.

1. You will gather from what has been already said that one may first come clinically in contact with certain cases by reason of an accident, perforation, or profuse hemorrhage, the ulcer being of the latent type and causing no previous complaints from the patient. The diagnosis in such cases is comparatively certain, involving the differentiation from perforations due to other causes, such as appendix trouble or that produced by gall stones. I mention these two conditions, as I have seen them mistaken for gastric and duodenal perforation.

Profuse hemorrhage from the stomach does not, of course, necessarily mean simple ulcer. Here we have to exclude that from other forms of ulcer, tubercular, typhoid, etc.; also that which may be occasioned by indirect local causes which produce portal obstruction, such as cirrhosis of liver, or due to circulatory obstruction, as in cardiac diseases, or that met with in certain of the blood diseases, as pernicious anemia, leukemia, hemophilia, scurvy.

2. Many cases of chronic ulcer come first to our notice with all the well-marked cardinal symptoms as above described—pain, vomiting, hemorrhage.

Here the question that first arises is, Is this simple ulcer we are dealing with or is it carcinoma?

We consider the age of the patient—ulcer more frequently between twenty and forty; cancer at middle age or after; the pain of ulcer more intense, brought on very shortly after eating and immediately relieved by vomiting, as opposed to the more steady though less intense pain of cancer and not influenced by vomiting.

The appetite in gastric ulcer may not be impaired nor the tongue coated, whilst in cancer the appetite is almost invariably very poor and the tongue thickly coated. My own experience would lead me to place a great deal of value on these points.

Vomiting occurs in both diseases; in ulcer usually soon after eating, whilst in carcinoma no special relation to eating, maybe once a day or in two days, and of the cumulative character.

Vomiting of blood in simple ulcer may occur in large quantities and be bright red or coffee grounds color; in cancer the quantity is usually small and coffee-ground.

The finding of blood, gross or occult, intermittently in the stools is in favor of ulcer. In cancer, constant occult hemorrhage is what we expect.

In ulcer, we find in the great majority of cases hyperchlor-



hydria, and in cancer an absence of free Hcl., usually some lactic acid, and the Boas-Oppler bacilli.

Personally, my greatest difficulty in diagnosing between ulcer and cancer has been in some cases where we have obstruction to the outlet at the pylorus, with or without a palpable tumor, causing great dilation and stasis and cumulative vomiting. Here, the presence of free Hcl., perhaps in excess, and the intermittent finding of blood, points strongly to simple ulcer, as opposed to the absence of Hcl. and the constant presence of blood, as is usual in carcinoma. Some weight may be attached to the more cachectic appearance of the subject of cancer, showing debility and emaciation.

In a few such cases I have felt it wise to reserve my definite opinion until after the surgeon's exploratory examination, and even then not have my doubts removed. I have just recently had a case with the above symptoms. The abdomen was opened, and even then the surgeon was at a loss to say positively, but as there were two distinct tumors and one involved the duodenum along with the pylorus (a condition rarely met with in cancer), I would believe the condition due to simple ulceration and its consequences.

Lastly, we meet with cases which come under neither one nor other of the two clinical groups I have described. They present no aggressive symptoms or signs. The history merely suggests a dyspepsia; a weight at the epigastrium, gaseous eructations, or some regurgitation, along with symptoms which may be set down as being due to neurasthenia. A hyperacidity of stomach contents and occult blood in vomiting and stools will clear up our diagnosis. These cases are to be differentiated from gastralgia nervosa and hyperchlorhydria.

In gastralgia nervosa we have a spasmodic pain in the stomach independent of time of taking food; pressure relieves the pain. There are no tender points; vomiting, if present, occurs at no regular times, and there is an absence of blood in stomach contents or stools.

In hyperchlorhydria, heartburn and eructations are complained of, pain comes on two to three hours after eating, and is relieved by eating or by alkalies. There are no circumscribed tender areas as in ulcer, nor is blood, occult or otherwise, found in the stomach contents or feces.

## NEURASTHENIA IN GENERAL PRACTICE.\*

BY H. B. ANDERSON, M.D., L.R.C.P. (LOND.), M.R.C.S. (ENG.),  
Associate Professor of Clinical Medicine, University of Toronto.

For the proper recognition of its importance, neurasthenia as a clinical syndrome had the misfortune of having been brought to the attention of the profession at an inopportune time. When Beard, in 1869, first described the condition and attempted to secure for it a footing in nosology, it was at the beginning of the period when the phenomena of disease in general were being investigated by the morbid anatomist, the pathologist, the bacteriologist and the chemist, and by them related to definite changes in the organs, tissues or fluids of the body. A disease, the morbid substratum of which was quite inaccessible to these means of investigation, and which depended for its recognition on diverse clinical manifestations, failed to impress the leaders of medical thought, and so received scant consideration from them. It is therefore little wonder that its very existence as a clinical entity was questioned, and that for years in Europe it was derisively designated the "American disease." This attitude of the leaders was reflected on the general profession, which has not even yet succeeded in freeing itself from early impressions. This is especially noticeable with reference to traumatic neurasthenia, where, in the absence of objective signs of injury, the existence of the condition is continually challenged by the legal profession, in which position they can usually obtain abundance of expert support from our own. This attitude is epitomized in the epigrammatic statement that the best cure for a case is \$5,000 damages. The remarkable improvement which sometimes follows this remedial measure at first glance appears to support the legal contention, but may usually be quite as satisfactorily and more charitably explained as being due to the removal of the worry and nerve stress incident to litigation, assisted, no doubt, by the beneficial psychic influence of having received compensation.

The same indefensible position is too frequently assumed with reference to the clinical conditions implied by nervousness, neurotic and functional disease, etc.; so much so that these terms are commonly associated in the minds of both physician and patient with imaginary ills, exaggeration or humbug. Patients, experiencing the reality of their sufferings, have become

\* Read before the Niagara Peninsula Medical Society, Niagara Falls, Canada, August 30, 1909.

acutely sensitive to the *stigma* attached to these terms, and too often have lost confidence in our ability to understand their cases, and after drifting from one physician to another finally seek in nostrums or from quacks and irregulars the relief we have failed to give them. In this failure on the part of the medical profession lies the main reason for the existence and influence of Christian Science, osteopathy, pilgrimages to shrines, the recent Immanuel movement, and other popular forms of treatment. Based on ignorance of the nature of disease, in many cases fraught with danger to the individual and the community, and mixed with error and superstition as they are, the fact cannot be denied that in the functional neuroses these systems of treatment have frequently produced cures where the regular practitioner has failed. Physicians have tried to minimize the importance of these cures by pointing out that they were possible only in functional cases, we have exposed their fallacies and dangers, their ineffectiveness in organic diseases and have sought to control them by legislative measures. But notwithstanding our efforts, we have failed to convince thousands of people, and those not always the most ignorant or undiscerning, that these irregular systems are not more effectual in many cases than our usual therapeutic measures. To be quite frank with ourselves, have we not been guilty of too much self-complacency in minimizing the importance of cures produced by these systems, even if they have been only in functional cases? If an individual has been an invalid for years and a burden to herself and family, is a cure which has restored her to health and usefulness less real because the disabling condition was a functional one? Is it not time that we as a profession faced the situation fairly, changed our attitude with reference to these diseases, studied the scientific principles underlying the irregular systems of treatment to glean the element of truth contained therein and incorporate it in a plan of rational management? Only in this way will we remove a stigma now attached to our art and bring a large class of suffering humanity under our control.

It is first necessary for us to recognize in practice as we do in theory that nerve tissues, like all others, are subject to the baneful effects of overwork, excessive strain, toxic influences, deficient opportunity for rest and repair, perverted general nutrition and inherent hereditary weakness, and that these effects may be manifested by purely subjective symptoms, in the development of a morbid condition in which the patient's complaints are out of all proportion to any discoverable organic change to which the



symptoms can be referred. In other words, we must recognize that these patients are really ill and require the same serious consideration as those afflicted with demonstrable organic diseases.

When we consider the normal functions of the nervous system—psychic, motor, sensory and vaso-motor—and the extent to which they govern or are related to the activities of all the organs and tissues of the body, we may readily understand the manifold symptomatology resulting from the perversion of these functions occurring in nervous exhaustion. From the fact that neurasthenia has no demonstrable morbid anatomy, that the symptomatology is so irregular and widespread, its recognition by the ordinary means of diagnosis is often difficult. The complex tangle of clinical phenomena and epiphenomena is more readily unravelled when the symptoms are correlated, weighed and interpreted in the light of etiological factors which are known to be capable of producing the disease. If our investigation of the case, which should embrace not only the patient's systemic condition, but enquire closely into the routine of his daily life and environment, discovers *known efficient* causes of neurasthenia, we may *a priori* look for the effects and interpret the symptoms accordingly.

Neurasthenia may arise primarily from failure on the part of the nervous system to adapt itself to the stress of the patient's surroundings, or it may arise as an epiphenomenon in individuals suffering from some organic disease. A clear recognition of these two great subdivisions is of the utmost importance, not only from a diagnostic but a therapeutic point of view. The task of determining to which class a given case belongs is not always an easy one, and requires often the highest degree of clinical skill and the most patient examination. From the intimate relation which the nervous system bears to the functions of all the organs and tissues of the body, it is not remarkable that in nervous exhaustion clinical manifestations in the digestive, circulatory, genito-urinary systems, or other parts are of the commonest occurrence. These results of disturbed innervation may closely simulate and are often mistaken for primary local diseases. Thus we frequently see hyperchlorhydria or other form of digestive disturbance, so often symptomatic of neurasthenia, treated by dieting or other local measures, the primary trouble being overlooked, notwithstanding the fact that the large majority of digestive disorders met with in the routine of practice are manifestations of nervous exhaustion, and respond not to local treatment but to measures appropriate to the primary trouble. On the other hand, in predisposed individuals,

gastric ulcer, gallstones, chronic appendicitis, latent carcinoma, ovarian disease, arteriosclerosis, larval Graves' disease, latent tubercle, etc., may be the underlying cause of a host of nervous epiphenomena, which mask the primary condition, and unless extreme care be exercised, lead to serious errors in diagnosis and treatment. It is therefore obvious that a symptomatic labelling of a case as neurasthenia is a very incomplete diagnosis. How unfortunate and irrational it would be to recommend the rest cure or psychotherapy for the treatment of these secondary cases. The necessity for individualizing and making an etiological diagnosis is therefore apparent. In no condition is the statement more applicable that we must consider the patient and not the disease.

In both primary and secondary cases the personal equation of the patient is of paramount importance, and must be carefully estimated. Heredity and early training are the chief factors determining the nerve capital with which the individual is furnished to meet the requirements of later life. Some are born with a reserve of nervous energy which enables them to bear up under the keenest stress of the struggle for existence. Others from the beginning are on the verge of nerve bankruptcy, the balance turning on the slightest provocation. Between these extremes all grades of nervous stability exist. Health is maintained so long as the nervous capacity (personal equation) acting against the stress of surrounding conditions, is capable of meeting the demands made upon it. Broadly speaking, normal nervous function may, therefore, be stated to be a condition of equipoise between nervous capacity and environment. In a given case hereditary neuropathic tendency, hysteria, epilepsy, chorea, alcoholism, syphilis, the ties, etc., in the patient's antecedents are very important in relation to his susceptibility to nervous exhaustion. Of the two factors, personal equation and environment, the former is the patient's hereditary portion, and as such is beyond the power of therapeutic alteration. Speaking generally, it may be conserved or dissipated, according to the external conditions acting upon him. Environment is the only variable factor, and to it we must look for the exciting causes of the disease, and only in so far as we can modify it have we any power of therapeutic control. These facts, so well emphasized by Cohnheim, with reference to disease in general, appear at first glance remarkable, but they will stand close investigation. The great importance, therefore, of the closest study of the patient's environment is readily appreciated. In this connection we must recognize not only a physical but a mental and moral



environment as well. The latter has too frequently been lost sight of in the consideration of this disease. Its influence has received practical recognition by Christian Scientists, osteopaths and other irregulars, and has been utilized to good effect in treatment. The advocates of suggestion, hypnotism, psychotherapy, etc., have also appreciated its importance. There appears a danger in fact at the present time of going to the other extreme and of attaching too much importance to the purely psychic aspect of the neuroses. Consider, for instance, the statement of Dubois that "nervousness in all its forms is a psychosis." Such a conception appears to me to be Eddyism pure and simple. Nevertheless the teachings of Dubois are having a widespread influence on medical thought at the present time. This conception of nervousness would seem to ignore principles that are accepted as axiomatic with reference to other diseases. If a nervous system, weak by heredity or other cause, is exposed to excessive demands upon its functions, as in nervous and mental overstrain, profound shock, worry, the depressing effects of financial, social, religious or domestic troubles; is further injured by the excessive use of tea, coffee, tobacco, alcohol or drugs, which these individuals crave, or by various auto-toxins; and because of the insomnia so constantly found in these cases, is deprived of the opportunity for rest and recuperation, need we be surprised that evidences of exhaustion develop and that this is manifested by a derangement of the host of functions normally dependent upon or controlled by these nervous tissues? To consider such a condition as purely psychic and requiring only psychic treatment is to overlook all the other etiological factors, the influence of which is constantly seen in practice. Take, for instance, the form of neurasthenia developing in white-skinned individuals in the tropics, due to the action of the actinic rays of the sun, from which dark races are protected by the pigment in the skin. Obviously what is required here is not psychotherapy, but an environment suited to the individual; or again, such a case as this: a sensitive young girl of somewhat nervous temperament, but in good health, became private secretary and stenographer to an exacting, nagging manager of a business. She worked long hours, at times in the evening as well as during the day; seldom had a day off; was subjected to hundreds of petty annoyances and the worries associated with the multitudinous details of her office work. In addition she interested herself during her evenings and Sundays in church work. In a short time she found herself continually tired, incapable of prolonged physical or mental effort, was depressed



and subject to attacks of "the weeps"; developed frontal, vertical and occipital headaches, digestive disturbance, loss of weight, irregular and profuse menstruation, etc. She found in tea a temporary relief and partook of it to excess; she was unable to sleep on going to bed, or when she did awakened frequently during the night or too early in the morning. She was eventually reduced to a most miserable condition, presenting in a marked degree the symptoms of nervous exhaustion. After a couple of months' rest and recuperation, with other means which the details of her case suggested, she was able to undertake a similar but less strenuous position, with a more considerate employer, and has since remained in good health. Another young woman undertook the duties she had given up with the first employer, and with similar results in the course of a few months. She also was cured by rest and a change to a business environment in keeping with her nervous capacity. I do not mention these as unusual cases, for I am sure scores of such, differing only in detail, have come within the clinical experience of all of you, but to illustrate that there are many factors other than psychic to be considered in neurasthenia, and which require adjustment before patients recover. Mental and nervous shock or over-strain, worry and the other deleterious influences before mentioned, tend to nervous exhaustion, in degree depending upon the original nerve capacity of the individual, the stress of environment and the duration of exposure.

Another point, it appears to me, has not been emphasized as fully as its importance warrants. During the clinical progress of a case of neurasthenia, numerous morbid systemic conditions appear, not as essential features of the primary disease, but as results of the functional derangement of important organs. Thus, from disturbed innervation, interference with nutrition, or from perverted metabolism we often observe loss of weight, anemia, oxaluria, phosphaturia, indicanuria, constipation and auto-intoxications, hyperchlorhydria, menorrhagia, etc. These epiphenomena complicate the clinical picture, and in themselves become causes of further trouble. In this way a vicious circle is established, in which primary and secondary conditions interact, tending to a continuance and exaggeration of both. Such cases obviously pass beyond the limits of purely a functional condition, which they may have been at the start, and for their relief the vicious circle must be broken by measures appropriate for not only the original disease, but usually for the epiphenomena as well.

Leaving these broader considerations, and dealing more

specifically with the symptoms presented by the disease, the latter may be classified as follows:

(1) General symptoms.

(2) Symptoms arising from disturbance of function of important organs.

(3) Secondary symptoms arising from the vicious circle established.

The symptoms may be further divided into psychic, motor, sensory, vaso-motor and visceral, as might be expected from what has already been said.

The general symptoms are fairly characteristic:

(1) A sense of muscular weakness or fatigue, either constant or brought out by the slightest exertion. The patient is always tired, often more so in the morning than on going to bed. The dynamometer shows that this weakness is more apparent than real. It may disappear for a short time after meals, but returns on slight exertion. It is "that tired feeling" so much exploited by the quack and patent medicine vendor.

(2) Mental depression, irritability or despondency. These patients are frequently in the blues, and women especially are lachrymose. The way very trifling difficulties are magnified, mountains made of molehills, is astounding. In severe cases the extreme irritability, lack of resolution, incapacity for initiative or for following a consecutive line of thought or action, makes these unfortunates a sore burden to themselves and those with whom they come in contact. Morbid introspection and attempts to analyze their own symptoms leave them particularly open to the influence of auto-suggestion. They live in an atmosphere of doubt, in which every trifle becomes a serious problem. An excellent clinical picture of the mental condition is that of Julius Carling in "David Harum."

(3) Headache—frontal, vertical and occipital—of which the latter is most constant and characteristic. It is often a feeling of weight or pressure rather than of pain. It differs from most organic headaches in often being present on awaking, and decreasing towards night.

(4) Insomnia is a very constant expression of nervous exhaustion. It early manifests itself in inability to get to sleep on retiring, in restlessness or broken sleep, or in awaking too early, or in the worst cases, in a combination of these. After tossing about for hours until the early morning, the patient may fall into a deep sleep, from which he later awakens unrefreshed.

(5) Painful or tender areas along the spine (rachialgia), in the iliac regions, hypochondria, beneath the breasts or above and



to the left of the umbilicus, are very common. The iliac pains in women are often attributed to ovarian trouble, but that they are due to the general nervous condition is shown by the fact that they occur almost as commonly in male as in female neurasthenics. The painful area above and to the left of the umbilicus, usually associated with aortic throbbing, and often with extreme tenderness, is of very frequent occurrence. Though not commonly mentioned in text-books, it is at times mistaken for an aneurism, tumor, or localized inflammation. I have seen at least two cases operated on by surgeons, who could not be convinced that they would find only a throbbing aorta until they cut down and convinced themselves. During the past week, I have had a similar case under observation, referred to me by a physician in a western town, who suspected an aneurism. Osler, in his practice of medicine, refers to the condition as "simple dynamic pulsation." As a bruit is readily produced by stethoscopic pressure over the pulsating vessel, to the inexperienced, the simulation of aneurism may be close.

(6) In severe cases there may be loss of weight, almost as great as in diabetes, malignant disease or tuberculosis, and the frequent occurrence of profuse sweats often gives rise to the fear of latent tuberculosis. There are some authorities, in fact, who believe that in many of these cases, a latent tuberculosis does exist. While unable to deny this, the disappearance of the symptoms under appropriate treatment would incline one to believe that neurasthenia, per se, is capable of producing these symptoms.

To recapitulate, I would say that a sense of muscular weakness and fatigue, irritability, headache, insomnia, mental depression and loss of weight, taken together, are the commonest general manifestations.

Of the second class of symptoms, those arising from disturbed functions of important organs and systems, the cardiovascular, gastro-intestinal and genito-urinary are most important. Vascular throbbing, palpitation and arrhythmia are very frequent. The gastric phenomena are perhaps of greater clinical importance, constituting as they do the major proportion of stomach disorders which we meet with in the routine of practice. I believe I am inside the mark when I say that three-quarters of the dyspeptics who consult one are suffering from nervous exhaustion, and are amenable to treatment suitable to that condition rather than to measures directed primarily to the stomach. As before stated, hyperchlorhydria is usually of this origin. Painful sensations about the stomach, a feeling of a



lump or pressure in the epigastrium, the "all gone" and numberless other sensations are common. Gastric flatulency is often complained of. That it is not due to actual fermentation is shown by the fact that it may occur immediately after eating, before there has been time for fermentation, or even after a drink of water. I had once a woman patient who showed none of the stigmata of hysteria, who for months had spent sleepless nights belching up gas. She was cured by a week's isolation and treatment, and though this was four or five years ago, there has been no recurrence of symptoms.

Intestinal flatulency, with painful areas, as before mentioned, constipation, and mucus colitis are often met with. The frequent occurrence of indicanuria, pointing to intestinal auto-intoxication, should always be examined for.

Of the genito-urinary symptoms, I shall say nothing of the sexual neurasthenia so common after gonorrhea, and so intractable. Irritability of the bladder, with frequent micturition, oxaluria and phosphaturia are all very common in neurasthenics.

Menorrhagia is very often an expression of perverted innervation in female neurasthenics. I wish to emphasize this especially because I believe its frequency is not appreciated, especially by surgeons and gynecologists. I have had several patients in the past year to whom operations for uterine or ovarian trouble had been advised, who recovered completely after a course of treatment for the existent nervous exhaustion. In this respect the gynecologists are the greatest offenders. I am convinced that in the majority of cases operated on for trifling lacerations and displacements, ovarian pain (so-called) and menorrhagia, the improvement following is due to the psychic influence, rest, isolation and diet rather than to the operation. In this connection, I would like to refer you to the article on "The Nervous Disorders in Women Simulating Pelvic Diseases," by Clara T. Dercum, in the *Journal American Medical Association*, March 13th, 1909.

The third class of symptoms arising from the vicious circle established as anemia, auto-intoxications, etc., has already been suggested, and requires no detailed reference.

In all cases the physician must be careful to distinguish hypochondriasis, psychasthenia and hysteria from neurasthenia, though the conditions are closely allied, may co-exist or overlap. The well-known stigmata of hysteria should be looked for—contraction of the visual fields, globus, loss of faucial reflex, areas of anesthesia, hysterogenetic zones, etc.

It is very essential also to exclude larvate cases of Graves'

disease, or hyperthyroidism. These cases are of frequent occurrence, but if the condition is borne in mind it can readily be excluded, as a rule.

I wish now to discuss briefly the therapeutic side of the disease, although much has been anticipated in what has already been said. Certain of the more aggravated cases require the services of specialists, with the hospital accommodation, specially qualified nurses and other facilities not at the disposal of the majority of general practitioners, but from the prolonged treatment required, expenses involved, and other circumstances, it is apparent that only the wealthy or well-to-do can be reached in this way.

It is evident, therefore, that the large majority of these patients must look to the general practitioner for counsel. Any system of treatment, to be satisfactory, must not only yield good results, but must be practicable in its application to the great mass of patients seeking relief. For this reason, the rest cure of Weir Mitchell and other elaborate and expensive methods carried out in special institutions, while at times yielding brilliant results, are beyond the grasp of the majority of cases met with.

If, in the majority of cases, the management of this disease is to be the province of the general practitioner, rather than the specialist, the former must either possess or acquire the qualifications which fit him for the duty. The first of these is a thorough acquaintance with the disease in all its bearings—its etiology and manifold clinical manifestations, as well as those of the other neuroses, with which it may be confounded. He must be truthful, but with tact; have sympathy, coupled with firmness; have faith and confidence born of knowledge; have patience, cheerfulness, kindness and resourcefulness. The physician who cannot secure and maintain the absolute confidence and co-operation of his patient, so as to have his instructions obeyed without question or debate, will probably fail. So important is this that where it cannot be secured, one should decline to treat the case. Once obtained, this grip of the situation must never be relinquished, though to maintain it often taxes one's powers to the utmost. Having adopted a plan of treatment, the rationale of which is explained to the patient, whose willing co-operation is obtained, this must be followed out to the letter. To vacillate, show doubt or irresolution, or even to make trifling changes at the suggestion or solicitation of the patient or his friends, is to invite failure. In giving instructions, the physician should be quiet, firm, clear-cut and specific.

The examination of the patient is in itself a most important therapeutic measure. It should be so systematic, detailed and thorough, so as not only to put one in possession of all the essential facts, but to impress the patient with the completeness of one's knowledge and insight into his condition. His doubts and fears may thus more readily be dissipated, and a happier mental state produced. Complete notes should be taken at the time of examination. These are necessary for future reference and comparison. The investigation should include the patient's antecedents, personal history, habits and details of his past life, with special reference to known causes of the disease. The possibility of secret worries, which the patient is loath to admit, must not be overlooked. The patient, on his part, must thoroughly unburden himself to his physician, concealing nothing. At times an incident which he has either forgotten, or the importance of which has been overlooked, may have been the starting-point of the train of nervous symptoms. A striking instance of this sort came under my observation some two years ago. Ten years previously a lady of nervous temperament, but in good health, was living next door to a young woman who either fell or jumped from a second-storey window to the cement walk between the two houses, receiving injuries from which she died in a few days. The lady in question had heard the fall and groans of the patient, and had seen her carried away in the ambulance. Investigation of her case showed clearly that symptoms, which culminated in a prolonged nervous breakdown, followed the mental shock produced by this single occurrence. Under the Weir Mitchell treatment she made a good recovery, which has been maintained.

In some cases a subconscious impression of some previous event may, unknown to the patient, influence his mental condition, and thus cause or perpetuate psychoneurotic symptoms. The method of psycho-analysis, elaborated by Freud, by studying and questioning the patient, learning of his dreams, etc., or by resort to hypnotism, seeks to discover the hidden idea or emotional state responsible for the mischief. Of the application of this method I have no personal knowledge. It is undoubtedly of value in certain obscure and difficult cases, but requires special training. Dr. Ernest Jones, of Toronto, has used this method in a case of hysterical auto-psychic amnesia of mine, with excellent results. (*Jour. of Abnormal Psychology*, Sept., 1909.) It is, however, in my opinion, neither practicable nor necessary in the large majority of cases. Psycho-analysis is at once diagnostic and curative in its operation.



A proper investigation requires both time and patience, and no opinion should be expressed, and no plan of treatment adopted, until it has been completed, even if several consultations are required. Reference has already been made to the value of psychotherapy. In an irregular way, its importance has been appreciated, and it has been practised by successful physicians in all ages, though at times unconsciously. In recent years, it has been studied more systematically, more elaborated, and more definite rules formulated for its application. The psychic influence of a detailed investigation, followed by explanation of the various symptoms, is very great. The patient feels that his physician's efforts are being directed towards something definite and tangible, and so his previous fears and despair are replaced by courage and hope. Explanation, encouragement, persuasion, suggestion and re-education are the psychic influences commonly resorted to. These measures undoubtedly act best when they are coupled with a change of scene or with rest and isolation, which may be necessary in the severer cases. Time will not permit my entering into details, for which I would refer you to the writings of Dubois, Weir Mitchell, Barker, etc.

The plan of treatment adopted in a given case will depend upon its severity, the causes and the patient's circumstances. In many of the milder cases the thorough investigation, with shorter hours of work, more hours for rest and relaxation, elimination of tea, coffee, etc., removal of causes of worry, correction of gross errors in diet, with possibly a short holiday amid congenial surroundings, will effect a cure. In any case, as far as possible, we should adopt a plan within the patient's means, or we may add a serious worry to those he already has. Apart from their psychotherapeutic effect, medicines occupy a very secondary place, but some of them may be of real service. In irritable cases, a short course of bromides may assist. In this class I have often found strychnia and the glycerophosphates to do harm, though they may be of benefit in some of the atonic conditions.

Where constipation exists, mild aperients, given to produce a daily evacuation, are of course indicated. After a preliminary or occasional mercurial and saline, I have found a good preparation of cascara the most generally useful. Hypnotics are often very helpful, but should only be given occasionally, or to break up a spell of insomnia. I have found sulfonal gr. xv. or xx., in a glass of water an hour before bedtime, repeated in four or five nights, if necessary, very useful. This may in part be due to the fact that, having most faith in it myself, I succeed

in giving the patient more faith and confidence in its use, and so produce a mental quiet conducive to sleep. One should always explain that it will act for several nights. Insomnia being itself a symptom of nervous exhaustion, tends to improve as the patient goes on to recovery. The frequent use of hypnotics over long periods is to be strongly deprecated.

Where anemia exists, mild preparations of iron, as pil. Bland Co., are indicated after the bowels have been got to act satisfactorily. In the nervousness of the menopause, ovarian extract, whether acting by suggestion or not, has appeared to me of benefit.

As far as possible I have given up strict diet lists in these cases, as I believe they often do harm by encouraging gastric introspection. Gross errors should, of course, be corrected, but a good plain, nutritious diet allowed. The breakfast food crank usually finds little comfort from his fads. It is better to tell the patient the few things he must not eat, and let him take what he does with courage and assurance. Fluids at mealtimes should be limited, and a sufficient amount prescribed an hour before meals, between meals and at bedtime. The practice of excessive water-drinking is as harmful as too little.

Hydrotherapy is often of value, the most easily applicable form being the cold morning dip in those who can take it, followed by brisk friction until a good reaction is secured. In cases where this is not well borne, cold affusion to the spine, followed by friction, may be substituted.

Massage, properly given, is often of value, but must be used with discrimination, as it is at times followed by a feeling of exhaustion, and appears to aggravate the symptoms. It is of course of most use in bed patients. I have seen no direct benefit from electricity in any form, though no doubt its psychic influence may be of value, especially in institutional treatment.

In the case of office patients, they must be seen at regular intervals—at first twice or more a week—and the progress reviewed. For this reason, I have found it a good plan to explain that medicines will require to be changed from time to time, and this should be done, even if merely placebos are given. This ensures frequent opportunities for applying psychotherapeutic methods—encouragement, explanation, persuasion, etc., and ensures continuity of treatment. In non-isolated cases, I always insist that the patient shall not discuss his symptoms with anyone except myself.

It is well at the beginning of treatment not to make extrava-

gant promises, but to explain that time, patience and hopefulness will be required, and that ups and downs may occur, the same as in healthy individuals.

While, in milder cases, readjustment may be brought about in a short time, in severe ones a year or more may be required.

In severer cases, rest and isolation away from home, with an experienced nurse, and daily visits, even for a fortnight or a month, is of great service. Travelling is not usually well borne.

In the severe cases, especially in women, the rest cure of Weir Mitchell gives the best results, though care is necessary in the selection of cases. This can never be carried out successfully at home, but requires a complete separation from previous surroundings, with specially trained nurses. General hospitals are usually not satisfactory for these cases, unless special quiet wards are provided.

In this paper I have attempted, though in a disjointed and fragmentary way, to suggest certain considerations and procedures which have been of practical value in dealing with this important class of patients. The fundamental principle in treatment should be the readjustment of the patient's environment—physical, mental and moral—so as to secure conditions in keeping with, or favorable to, his nervous capacity. The essential or hereditary neurasthenic, who develops symptoms of the disease under the most favorable circumstances, presents the most difficult problem to the therapist, as the underlying cause is beyond control, and the limits of adjustment are very narrow. The despair of the therapist is the victim who has no faults to correct, or no bad habits to forego.



# THE THYROID GLAND—ANATOMIC, PHYSIOLOGIC, PATHOLOGIC, THERAPEUTIC FACTORS.\*

BY DR. JOHN HUNTER, TORONTO.

*Anatomic Factors.*—The anatomy of the thyroid gland presents many interesting features. Standard works on anatomy give very full descriptions of this gland, and this knowledge should be supplemented by a careful study of the organ during dissections of pathologic specimens from the operating table, as well as of the gland from the lower animals. Each of the two lobes is divided into a large number of small lobules, which are suspended in a network of connective-tissue fibres. The lobules are made up of follicles, which rest on the walls of the lymphatic spaces, and on the blood-vessels. The secretion from the cells is a viscid, amber-colored fluid, known as colloid material.

The thyroid is very vascular. The superior and inferior thyroid arteries and veins are quite large, and follow very tortuous courses. The lymph vessels empty into the thoracic duct and right lymphatic duct. The nerve supply is from the pneumogastric and cervical sympathetic.

There are accessory glands, known as parathyroids. These vary much in number and in their location.

The thyroid is a ductless gland. It is found in embryonic life, and is more active in function during youth and adolescence than in later years. The secretion contains two substances—iodine and phosphorus. From the union of iodine and globulin iodothylin is formed, and the amount of the latter present varies with the food, season and species of animal. It is said to be less in goitrous districts.

## PHYSIOLOGIC FACTORS.

In the past, many hypotheses have been advanced as to the function of the gland, e.g., mechanical, protective, short circuiting a portion of the blood flowing toward brain, exercising some influence over sleep, sex functions, emotions and metabolism.

Congenital absence, morbid conditions, removal of the gland, or of the accessory parathyroids, is followed by a peculiar train of symptoms.—dulness, apathy, muscular weakness, impaired development, twitching, tremors, tetany, spasms, contractions, paresis, paralysis, paresthesia, anorexia or voracity,

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\* Abstract of paper read at Academy of Medicine.

anemia, leucocytosis, malnutrition, edema of eyelids and face, roughness of skin and loss of hair. A few, or many, of these may become well marked. Pressure causes contents to pour out into surrounding spaces. The secretion is increased by use of pilocarpine. It may be carried by the lymphatics into the general circulation, or absorbed directly by the capillaries. The secretion seems to be stimulated mainly by chemical influences exerted through the blood. The functional activity of the secretion is very much influenced by the amount of iodine present.

The morbid conditions, known under the title of cretinism and myxedema, are due to the absence of thyroid secretions, or to morbid changes in it. The classic signs and symptoms of these pathologic conditions are: Imperfect development of body and mind; body stunted and dwarfed; head large, flat on top, spread out at sides, narrow in front and broad behind. The face is usually broad, stolid, and expressionless; forehead low and broad; nose broad, short, depressed at root; cheekbones stand out, and the skin is loose and flabby; complexion pale, sallow, waxy; the lips coarse, perverted and protruding; hands chubby; fingers short and thick; skin thick, dry, brawny, rough; nails marked by red, white and blue segments; perspiration rare; temperature subnormal; mental apathy, idiocy.

There are two hypotheses in regard to the action of the thyroid secretion, viz.: (a) Action on metabolism, (b) or action on some systemic poisons. In regard to the former, "it seems possible that a thyroid may be ineffective, either by providing too little of the normal iodothyroglobulin, or by producing thyroglobulin poor in iodine." In respect to the second hypothesis, viz., that of neutralization of some poisons, there is but little known. It is assumed that, as the lymph passes through the gland, toxic substances are broken up and enter into more harmless compounds with the iodine. An injection of iodothyryn exerts a specific influence on the entire nerve supply of both heart and blood vessels.

The function of the parathyroids is somewhat analogous to that of the thyroids, although their removal is quickly followed by tetany and death.

#### PATHOLOGIC FACTORS.

These factors are intimately associated with the morbid conditions found in cretinism, myxedema and exophthalmic goitre. The signs and symptoms of the first two have been given already. The most characteristic symptoms present in exophthalmic goitre are "exophthalmia, tachycardia, tremors, muscular weakness, nervous excitability, vertigo, retarded movement of upper eye-

lids, retraction of upper lids, paroxysmal dyspnea, intermittent vomiting, diarrhea, sweating, or mental depression, psychic excitement, mental fatigue. The conditions found in cretinism and myxedema are due to an absence of a sufficient supply of the normal secretion. Exophthalmic goitre is due to an excessive quantity of the secretion. The former condition is known as hypothyroidism, the latter as hyperthyroidism.

The thyroid may become infected in diphtheria, scarlatina, measles, or rheumatism. Goitre is most frequent in first year; then from eleventh to fifteenth years. It may be endemic. It can be produced experimentally. The most common pathologic changes are parenchymatous and adenomatous proliferation, and the presence of cysts.

#### THERAPEUTIC FACTORS.

Prophylactic measures merit strict attention. When hereditary taint appears, the children should be placed under the best possible sanitary conditions. Outdoor life, well-ventilated rooms, abundance of wholesome food, and in cretinism and myxedema, the early administration of a reliable thyroid extract. The extract may be given in small doses—half a grain or a grain, frequently repeated—or larger doses at longer intervals. The excessive, or too prolonged use of the extract has to be guarded against. Co-existent morbid conditions, such as anemia, chlorosis, diarrhea, tuberculosis, syphilis, constipation, menstrual, nervous, or vascular disturbances require specific treatment. “In the various conditions of vasomotor disorders, the internal secretions, as represented by thyroid, parathyroid, thymus, adrenal and ovarian preparations, aided by some such drugs as the calcium salts, the barium salts, picrotoxin, ergot, digitalis, strophanthus, cactus, aconite, veratrum, the nitrites, hyoscine, atropine, assafoetida, musk, sumbul, valerian, camphor, and strontium bromide, are to be used, choice being made amongst these various agents, according to the particular group of symptoms that is to be dealt with.”

The digestive ferments, lavage, purgations, intestinal antiseptics, baths, hot and cold douches, rest, passive and resistive movements, exercises, have value in the treatment of these morbid conditions.

Dietetic, hygienic and medicinal measures may fail in effecting a cure, or in retarding the progress of the morbid conditions. In such an event, surgery comes to our aid, and in few fields has it achieved greater success. Unless the patient's health is already too severely impaired, surgery offers a practically safe and effective cure.



## THE DOCTOR.\*

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BY THOMAS SPARKS, M.B., ST. MARY'S.

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There is an old and somewhat stale proverb which I am sure you all know, that it is always the "unexpected" which happens. Let me hope that you will not be unduly disappointed if that proverb be once more verified in our pleasant little medical gathering here to-day.

I am aware that it was announced that I would read a paper on "Diseases of the Prostate" at this meeting, but I hope, nay, I am sure, that you will all pardon me if, standing as I do on my old camping-ground, on the spot where, vulgarly-speaking, I first hung out my shingle, in the neighborhood where a quarter of a century of the best years of my life was spent; if, after forty-two years of practice, forty-two years of fighting the fight of life against death, of groping often and guessing in the dark, of manifold failures and some successes, my mind should grow for the moment somewhat reminiscent, and, grasping things more in their entirety than in part, I should put aside every subject of disease that afflicts either the son or daughter of Adam—be it prostatic or otherwise—and, turning away from the patient, with the thousand and one ills that his flesh is heir to—real or imaginary, I should turn for the subject of my ten or fifteen minutes' paper to a much more congenial theme—the Doctor himself. And indeed, gentlemen, what more appropriate or fitting theme could be chosen? Pill and potion and powder sink into utter insignificance itself in their interest as a subject when compared with their vendor. Modest as we are as a profession, I feel that a few minutes devoted to an honest examination and appreciation of the physician himself may not, even at a meeting of this kind, be altogether amiss.

Amid the thousand duties and callings of the busy world in which we live—varied, indeed, as they are in their importance and in their responsibilities—his duty it is to guide the frail bark of humanity over the great ocean of life into the port of health and safety, sometimes, thank God, amid the full light of day, but often amid the twilight, and oftener still amid the darkness of night, with only here and there a star to guide amid the rocks and breakers which beset the way.

More than once it has been my fortune, in making the trip

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\* Read before the Oxford County Medical Association, August, 1909.

down our own St. Lawrence from Kingston to Montreal, through the magnificent scenery of the Thousand Islands, to make the exciting passage of the Lachine Rapids. I well remember, as I stood on the deck of the little steamer, watching as she slowed up for a few minutes, the grim old Indian pilot come aboard. He alone, they said, knew the intricacies of the channel we were about to pass. I saw the captain give the wheel into his hand and silently take his place at his side. I saw the pilot, with watchful eye fixed on some spot in the far distance, with steady hand, guiding the careening boat through the boiling and foaming waters, past rocks flung athwart her way, and where she seemed to me to tremble on the very verge of destruction.

And often I have thought since then that no man better than that pilot voiced forth the mighty responsibilities, both of life and happiness, that lie on the shoulders of the men of the profession to which we belong.

Let us then for the moment drop this furbishing of our weapons of warfare, which is so usual at meetings of this kind, and, "lining up," as it were, with other men and other callings on the battlefield of life, let us try to get ourselves, both professionally and individually, into proper perspective with the rest of the world.

And, first, let me say that among the members of the so-called learned professions, "the doctor" alone approaches most nearly that "Time-Spirit" or "Zeit-geist" as the Germans call it, which is abroad in the world to-day. Trained, as he necessarily must be, in science for the proper knowledge and practice of his profession, he is, so to speak, abreast with all the marvellous discoveries and thought of our age. He alone, scientifically speaking, has an adequate grasp of the laws of the universe in which we live, whether they pertain to animate or inanimate matter. His hand alone is upon the pulse of nature, and his ear alive to her teaching.

The lawyer, indeed, far surpasses him in his knowledge of human law, and as a valuator of human testimony, but he has not that working acquaintance with the great laws of the universe which gives a cosmopolitan grasp of the world situation.

The theologian, trained in all the lore and beliefs of what may be called the world's childhood, is necessarily, more or less handicapped by such training, and too often, alas, by the exigencies of his creed as well.

The doctor, it seems to me, is better equipped mentally, both by knowledge and occupation, than men of either profession, to grasp and to deal with those great questions of life, mind and

destiny which have ever been the enigmas of the past, and are still the puzzles of the present.

Need I tell you that the doctor has ever been a leader in the van of the world's progress, ever an interrogator of nature, an unraveller and an interpreter of her secrets, and ever a philanthropist as well, because he brings all the wealth of knowledge he has won to lighten the pain and suffering of a disease-cursed world.

There is no side of the intellect which his profession does not call into play; no region of knowledge into which either its roots or its branches do not extend. Like the great Atlantic, between the two worlds, the old and the new, its waves wash the two shores of the worlds of matter and of mind. He alone, among men of the learned professions, seems possessed of that "divine dipsomania" which is forever athirst to drink of those hidden springs of knowledge which lie concealed in the breast of nature, and which, one by one, it is his to reveal and bring forth like the "leaves of the Tree of Life, for the healing of the nations."

To him, indeed, in these modern days at least, it may truly be said: Thou has given sight to the blind; thou hast made the lame to walk and the dumb to speak, and on the pallid face of disease thou hast set the rose of health; "thou hast given thy beloved sleep," and wrapped in happy dreams the throbbing nerves of pain.

In this great beehive of a world of ours, with its myriad occupations and activities, if we measure men, not by the paltry standard of dollars and cents, but by that higher ethical standard which God has placed within the breasts of all of us, that sublime standard of duty which has been crystallized by the universal voice of humanity into the "Golden Rule," what nobler calling has the world than the doctor's, and whose responsibilities are greater than his? Indeed, so varied are his responsibilities, and so different from those of other men, that it is hard to make a comparison. Other men may seek and choose their task; the doctor must take pot-luck of what comes. Be it prince or be it pauper, in palace or in hovel, he must give of his very best, both in time and attention, with often the scales of life or death hanging upon the decision of his judgment or the skill of his hand, and many a time no recompense for his services save the thanks and gratitude of the poor and helpless.

Other callings have their hours of labor and of rest. The doctor, like the watcher upon the walls of Zion, is always upon duty. No hour so untimely, no night so stormy and so tempestuous that he may evade the call of suffering humanity. To



him every suffering mortal is God's creature, needing help, so forth he goes, however weary, to dō battle with death.

Honestly speaking, where in all the realm of human endeavor is there to be found more genuine self-sacrifice, more true heroism, more real philanthropy than is seen in the life of the ordinary doctor, persistently denying himself rest and sacrificing often health and sometimes life upon the altar of duty? And if we turn aside for a moment to look at the importance of his calling—if human life and health be indeed the world's most precious freight—then, whose calling can exceed in dignity his who has it in charge—the Doctor? "He was there at your birth, when you were cast upon the bosom of nature like a helpless shrimp upon the shore by some ocean storm. He heard your first wail and soothed your earliest pain, and his hand was the one that first gave you to your mother's loving breast. And all through life, as has been eloquently said, "he holds your hand and guards your steps and tends and cheers you in your hours of sickness and distress." He knows your very life secrets, and shields you from the voice of slander. And when at last the grim rider, "Death," on his pale horse, comes to hush forever your throbbing heart, the doctor is there to quiet your pain, to smooth your pillow, and to make the path down to the "Valley of the Shadow" more easy to bear. And ah, how often, too, the touch of his hand is the last you feel, his voice the last you hear, and his face the last your dim eyes can sense, before consciousness fails and memory fades, and you drift away, alone, into the shoreless ocean of that great beyond, whose waves roll all around this world of ours."

And though he stands, and ever must stand, powerless and helpless in the presence of the King of Terrors, yet it is well in his conscience to know that he has done his best; so, bowing his head in sorrow, he grieves with those that grieve, then goes forth to battle again with death in other homes, to other defeats and to other victories.

In this complicated modern life of ours, where "knowledge is, indeed, power," the doctor is in some ways a very king among men. "He holds the world's ships in quarantine till he says that they may come ashore. No prison bars can lock him out, no court can unseal his lips. Men flee away and leave the city almost a desert when he raises the yellow flag, and they fall on humble and grateful knee when he holds aloft the banner of the Red Cross."

"If he be, indeed, worthy of the profession he bears, by the simplicity, the nobility of his life, and by his devotion to his

kind, he wins a high place in the hearts of men, and his knowledge gives him a seat in the 'Temple of Wisdom,' even though his wealth be not of gold nor lands, nor in princely homes which smaller men do seek. His dower is to know, and to help, and to heal."

Though at his best and highest, a very personification of that sublime passage, spoken of another, that he came "not to be ministered unto but to minister," yet by his ceaseless toiling to prolong the lives of others, he shortens his own. Neither the loathsomeness of disease nor the dread of contagion can quell his zeal for the furtherance of knowledge in the service of humanity, and, oftener than we deem, his is indeed, the martyr's crown.

"I know not what the doctor's Sunday religion may be—to what sect he may belong, or at what altar he may bow the knee—but this I do know, that oftenest, perhaps, the working week-day religion which lies deepest in his heart is an agnostic, creedless, humanitarian devotion to suffering humanity. The scales alone of Mercy and not of Justice are in his hands, and his is the divine commission to go "forth and heal"; nor is he limited to the "lost sheep of the house of Israel." His name may be on the church books of some particular denomination, but his soul is too wide for such narrow bonds. In the words of one of the world's great men, he says:

"The world is my country; to do good, my religion."

Men of all creeds and colors are alike to him. They are all but the creatures of heredity, education and environment, who follow, as they can, the light which has been given to them, and all, we hope and trust, will reach the same rest.

None better than he can realize the truthfulness of these lines of one of England's deathless poets:

"Our little systems have their day;  
They have their day, and cease to be;  
They are but broken lights of Thee,  
And Thou, O, God, art more than they."

To the thoughtful doctor's eye, all life comes from God, and returns back to God again. In Him all life "lives and moves and has its being," and no one creed alone is keeper of the pearly gates nor holds alone the keys of the portal of the "city not made with hands."

One word more and I have done. The ideal doctor, and such alone I have been trying to describe; and such, too, I trust we are all at least striving to be, cares but little for what the world

commonly calls success. What is success? Success is the satisfactory accomplishment of that which we have undertaken. To the moralist it means a blameless life; to the financier it means wealth; to the politician it means office; to the physician, in a worldly sense, it may mean wealth or fame, but in the highest and noblest sense it means a life spent in the alleviation of human suffering. It means a life of perfect honesty, both with yourself and with others.

To some men it is sufficient that they are esteemed by their fellow-men. To others, a true and genuine self-esteem must come first. To some men a good reputation is the all in all. To others, character is the first aim in life. Reputation, after all, much as it is to be desired, is only what others think of us. Character is what we really are. It is what, in our deepest hearts, we think of ourselves.

We must aim high to reach the ideal. I know that the ideal of anything is perfection, and I cannot, perhaps, quite imagine a perfect doctor; yet, as an aspiration towards it, I would suggest—an honest man. There may be a kind of honesty which is “the best policy,” but it is not honesty from principle. I do not believe that the doctor who is honest from principle will always rank very high in Bradstreet’s. His principles may interfere with many a clever side-step towards wealth, or even towards the achievement of what the world calls fame, for the modesty which is ever the companion of honesty will prevent him from blowing the brassy horn of self-praise. He observes perfect propriety in little things as well as great, not because it pays, but because it is consistent and right. He will not tell a child that the medicine “is good” to get a nauseous dose down its throat, nor by cunning, underhand ways lead people to discredit the ability of a brother physician. He does not knowingly exaggerate the gravity of the cases under his care, nor does he assume that owl-like look of wisdom which is so much more effective with the public upon occasion than any frankness of speech would be. Even though the public be composed, as Carlyle somewhat cynically said, of a large “plurality of block-heads,” and notoriously gullible in medical matters, yet he does not tie “policy” to the apron strings of “principle” in his dealings with them.

I am sorry to say that perfect honesty in medicine is not always a “paying proposition.” An honest doctor must not always expect to win wealth, nor to walk through life upon thornless paths, nor to sleep upon downy beds of ease. He must not always even expect to get credit for being honest, and often



his word will not be as convincing as the egotistical brag of the bombast. Still, even though it may pass him by, this wicked, hypocritical world of ours bows its head in genuine homage and respect when it meets an honest man.

Be not cast down. Struggles, after all, are what make the man, and the end of the journey is determined in advance by the direction in which we travel.

Touched by the pathos of human life, the shadows that fall on every heart, the thorns in every path, the sorrows, the sickness, the pain that ever lie between our mother's arms and death's embrace, the ideal doctor will ever place the service of humanity before that lust of gold which so often impoverishes the soul while it enriches the pocket. Surely gold only impoverishes!

I remember once, years ago, in the mountains of the West, watching men wrench the yellow dross from the miserly clutch of the sullen rocks. When I saw the land, treeless, shrubless and flowerless, it flashed on my brain that gold has the same effect on the soil that holds it as it has on the heart of the man who labors and toils for it alone. It blights the heart as it does the soil, leaving it without the flower of kindness or the blossom of pity.

I said that we must be honest. But honesty itself is not enough. Along with it must go tact, temperament and training, that happy trinity of qualities which are the very essentials of the ideal physician. Tact, that wonderful skill in appreciating and accomplishing, which often distances talent itself in the race of life; temperament, that "gift of the gods," that divine magnetism, which projects us intuitively into the hearts of others and draws the hearts of others to us; and training, that ceaseless girding on of the arms of our profession through long years of constant study and experience. These things, gifts of nature and of knowledge, must be the wreath around the ideal doctor's brow.

Thus we look at him in his strength and in his weakness, in success and in failure; sometimes snatching life from the grasp of death like a brand from the burning; sometimes standing by the couch of sickness, full of knowledge, yet powerless to save; sometimes with clearest vision, sometimes puzzled either to know or to do; rejoicing over success and grieving over failures and mistakes, too, which often, alas, mean so much.

And so the true doctor lives his life with content, and works out his destiny with patience and boundless charity to all the world, lifting, as he can, the burden of pain and sickness from

the shoulders of men as they journey on their way to that final catastrophe which staggers our reason, shocks our affections, and so far defies explanation.

All life, it is well said, ends in a tragedy at last. Towards that tragedy he, too, journeys with his kind, and at last he, too, falls before the foe he has battled with so long.

The doctor has seen humanity both at its best and at its worst. He has seen it without its mask and without its shield. He has hid beneath the cloak of charity many a dark blot of weakness and of sin. He has weighed it in the scales of mercy, not of justice, aiding it in its struggles for help, and pitying it in its griefs. He has been perhaps nearer to its troubled heart than any, excepting the "Man of Galilee." He has heard confessions which never fell upon the ear of either minister or priest, and which will never be breathed into the ear of either calumny or slander.

And when life's journey for him at last is done, and the end comes—"Twilight and evening bell, and after that—the dark"—mine be it, and not only mine, but everyone's within sound of my voice, to have some such finish to our lives as is here so finely described in Will Carleton's beautiful poem:—

"There's a gathering in the village, that has never been outdone  
Since the soldiers took their muskets to the war of sixty-one;  
And a lot of lumber wagons near the church upon the hill,  
And a crowd of country people, Sunday-dressed and very still.

Now each window is pre-empted by a dozen heads or more,  
Now the spacious pews are crowded from the pulpit to the door;  
For with coverlet of blackness on his portly figure spread,  
Lies the grim old country doctor in a massive oaken bed.

Lies the fierce old country doctor,

Lies the kind old country doctor,

Whom the populace considered with a mingled love and dread.

Maybe half the congregation, now of great or little worth,  
Found this watcher waiting for them when they came upon the  
earth;

This undecorated soldier, of a hard, unequal strife,  
Fought in many stubborn battles with the foes that sought  
their life.

In the nighttime or the daytime, he would rally brave and well,  
Though the summer lark was piping, or the frozen lances fell:

Knowing, if he won the battle, they would praise their Maker's  
name,

Knowing, if he lost the battle, then the doctor was to blame.

'Twas the brave old virtuous doctor,

'Twas the good old faulty doctor,

'Twas the faithful country doctor, fighting stoutly all the same.

When so many pined in sickness, he had stood so strongly by,  
Half the people felt a notion that the doctor could not die;  
They must slowly learn the lesson, how to live from day to day,  
And have somehow lost their bearings—now this landmark is  
away.

But perhaps it still is better that his busy life is done;  
He has seen old views and patients disappearing one by one;  
He has learned that Death is master both of Science and of Art;  
He has done his duty fairly, he has acted out his part.

And the strong old country doctor,

And the weak old country doctor,

Is entitled to a furlough for his brain and for his heart.



## Editorials

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### WESTERN FEDERATION.

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We are publishing in this issue a report of the proceedings at the Banff meeting, September 28th. We must congratulate our friends of the West on the fact that they have done more in a few months in the direction of Dominion Registration than Ontario, Quebec and the Maritime Provinces have accomplished in twenty-five years. There is something definite, clean cut and business-like in the resolutions passed at this meeting. Such methods of doing something, instead of looking old and wise and talking platitudes, are rather inspiring, and a study of them may do us slow folk in the East a lot of good.

We feel certain that the majority of the profession of Ontario will regret that this Province could not have taken a more active part in the negotiations in Banff. We may as well recognize the fact, however, that there is a strong suspicion in the minds of the profession in other parts of Canada that Ontario has never in the past, and does not now really want anything like inter-provincial reciprocity. For many years the other provinces had good reasons for their suspicions, and at the same time the Medical Council was supported in its action by the majority of the profession in this Province. Things have changed, however, to a wondrous degree, and there can be little doubt that the majority of the profession in Ontario at the present time desire to see a system of Dominion Registration whether through inter-provincial reciprocity or otherwise.

It is most unfortunate that the Ontario Council at its last meeting did not give the subject more careful consideration. The delegates sent to Winnipeg were instructed to meet the Committee of the Councils of the North-West and Manitoba and "discuss" reciprocity between the provinces, but had no power to do anything. That is to say, they could do nothing but discuss and report, which really meant postponing again for at least one year.

Representatives of the four Western Provinces met at Banff September 28th, with a determination to do something—and they did much. Dr. Spankie, an ex-President and member of the Ontario Medical Council, was present—in what capacity we hardly know, but certainly without any power to speak with authority. It is most unfortunate that a man so high-minded and honorable, and so well versed in educational matters as Dr. Spankie should have been really nothing more than a visitor at this most important meeting. Under the circumstances we cannot blame the Western men for going on with their business.

We are assured, however, that a large proportion, and probably the majority, of the physicians of the West want something bigger and better than the federation of four provinces.

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### ONTARIO MEDICAL COUNCIL.

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Our correspondent "M. D.," though not a member of any Medical Council, has a very intimate knowledge of medical politics in the various provinces of Canada, but especially Ontario, Quebec and the Western Provinces. We received the letter, published in this issue, before we had heard any particulars of the Banff meeting. All the information obtained since goes to show that our correspondent is right. We should, therefore, like to call the attention of the Council to the suggestion that it would be well to call a special session to consider the advisability of amending the Ontario Medical Act by the addition of an "enabling clause," empowering that Body to act soon after the Roddick Bill is amended, as it is likely to be at this session of the Dominion Parliament.

There is another strong reason why the Council should take immediate action. There is a feeling in various quarters, both among the public and the profession, that *it should do something at once* in the direction of providing better machinery to punish physicians guilty of criminal conduct. Its members say that it can do no more than it has done in the past under the provisions of the Medical Act. It is generally admitted that

the act is defective or "ambiguous." The majority of the Council hold the same opinion, but when a motion was made at the last meeting to endeavor to correct the ambiguous clause it was defeated, 6 voting for and 18 against. One of the most highly respected members said that he approved of the motion, but was afraid to go to the Legislature. Afraid of what at the present time we might ask?

Of course there were reasons for not appealing to the Legislature at one time. The late distinguished counsel, Mr. B. B. Osler, advised the Council not to ask for amendments. That, however, was a long time ago. We think the conditions he feared do not exist now. Things have changed very materially, and if the Council does not take action soon others will, and the Council is the proper body to act in the way proposed.

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### THE RODDICK BILL

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Since the above editorial was written we have learned that the Council has taken prompt action, and a special meeting has been called for December 7th.

We presume that, among other things, the Roddick Bill will be discussed. After a lapse of seven years this Bill, which, apparently, had almost died a natural death, has somewhat suddenly come to the front again, and is now very much alive in all parts of the Dominion. The so-called "Roddick Bill" is an Act to provide for the establishment of a Medical Council in Canada. The purposes of the Council shall be to effect the establishment of a qualification in medicine such that the holders thereof shall be empowered to practise in all parts of Canada; the establishment of a board of examiners; the establishment of such a status of the medical profession in Canada as shall ensure recognition thereof in the United Kingdom; the enactment, with the consent and at the instance of the Medical Councils of the various Provinces of Canada, of such Provincial legislation as is necessary to supplement the provisions of the Act and to effect the foregoing purposes.



At the last meeting of the Canadian Medical Association a resolution was unanimously passed, from which we quote as follows: "That this Canadian Medical Association, now in session, urge upon Dr. Roddick the great importance of impressing upon the Government and Parliament of Canada the desirability of so amending the Canadian Medical Act of 1902 that when five or more Provinces agree to the provisions and pass the necessary legislation to make it effective, the bill may become law and apply to those Provinces which have so legislated."

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### OPERATIONS AND PROPER NAMES.

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At the last meeting of the Ontario Medical Council an interesting discussion took place with reference to the use of proper names in examination questions: such, for instance, as Bozer's or Sim's or Halstead's operation, and Frank's breech. The history of the last expression is somewhat interesting. At the examination held in May, 1908, an examiner put the following question. Diagnose a breech. "How would you break up a Frank breech?" The students had never heard of such a thing as a Frank breech. No member of the Council understood the Frank breech. Therefore, strange to say, a question was asked by an examiner which no member of the Council and no candidate at the examination could answer. A discussion took place in the Council about Frank's breech, which was perhaps still more disconcerting. This probably arose from the fact that the examiner or proofreader made the word frank commence with a capital letter.

There is really no such thing as a Frank's breech, but there is such a thing as a frank breech. The term is used by Whitridge Williams, in his excellent book on Midwifery, three times or more. It means presentation of the breech alone with the legs extended against the belly of the foetus.

We think the term "frank" in such a connection is absurd, and we know of no other prominent English writer who uses

the term. We do not think Williams intended to coin a new word, but was simply following the German custom, which calls such a presentation a "simple" breech; an ordinary breech, a "complete" breech; and a footling a "half" breech.

Williams' work on Obstetrics is an excellent one in a way, but not at all suitable for the undergraduate student. It happened that the examiner, Dr. Ross McCabe, had a great admiration and a thorough knowledge of this text-book, and inadvertently did some injustice to the students, more than once on that account; but in doing so he had not the slightest intention of asking anything like a "catch" question. We think, therefore, that it is only just to Dr. McCabe to speak in a somewhat positive manner, and state that he had a good knowledge of the subject; and was an excellent, practical and honest examiner. The writer of this article entertains a very high opinion of Dr. McCabe, and takes this opportunity of thanking him for certain acts of courtesy while he was examiner in obstetrics for the Ontario Medical Council. The writer's desire was to keep in touch with the Council, and Dr. McCabe very kindly reciprocated.

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### RECIPROCITY WITH GREAT BRITAIN.

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The matter of reciprocity between Great Britain and the Province of Ontario is one of great importance. There has been a good deal of opposition to reciprocity in the past, but conditions have changed so materially in many ways that the feeling in favor of it has grown very rapidly in recent years. There is, of course, the sentimental aspect which always appeals to loyal Canadians who love the dear old Mother Country, especially since the South African war.

We are glad that members of the Medical Council are considering such reciprocity very carefully. At its last meeting a committee was appointed to investigate the matter and report. The time at the disposal of this committee was too short to enable them to finish their work. They consequently presented the following very short report:

"The Committee on Reciprocity with Great Britain beg to report that they have met and discussed the question, and that, owing to the very great importance of the question, they feel that it requires further time for consideration, and therefore request that the Committee be continued."

We presume the Council will deal especially with the practical side of the question. We think also that in so doing they will find many reasons in favor of reciprocity, and very few against it. The profession are commencing to realize that it would be a great boon to a large number of our young graduates who might, with British registration, get many appointments in various civil and military services in Great Britain.

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### MEDICAL AUTOMOBILIST.

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A number of our medical brethren in Great Britain who have recently taken up the motor car have got into trouble because of over-speeding. In one instance a surgeon was returning in haste to London in response to an urgent message respecting one of his patients in a certain hospital. When travelling in his motor car to see his patient, he was stopped by the police and summoned on a charge of breach of the speed limit. The surgeon considered that such breach, under the circumstances, was justifiable in the interests of suffering humanity. He said if he had not been stopped by the police, he would have reached the hospital in time to have saved his patient's life. It happened that he would have reached his patient more quickly if he had conformed with the laws respecting speeding.

We really can see no reason why medical men should be excepted from the speed regulations. The dangers from rapid driving in certain places, especially in crowded streets, are so serious that no one should be allowed to exceed the limit.

It is rather absurd, for instance, for a London surgeon having a patient in a large hospital in that city, and receiving a telephone message from a place fifty miles in the country, to claim the right to endanger the lives of men, women and children in



his journey to a patient who has capable house surgeons and nurses to look after his welfare.

A certain writer in the *Daily Mail*, of London, claimed that medical men should be excepted from the speed rules, and supported his contention by the report of a case. He said that, on a certain occasion he was informed by his house surgeon that he need not attend the hospital, as the patient whom he proposed to visit had ceased to breathe. However, he telephoned directions for artificial respiration to be performed, and started off immediately in a taxicab. On arriving at the hospital, he cured his patient by performing an operation which gave vent to a brain abscess. He thought, in that case, he was justified in driving four miles in ten minutes. This is a good story, related in a lay newspaper, and initialed. It seems strange that no report of it appeared in the medical press. However, if the story is exactly true, it would hardly justify wholesale recklessness on the part of physicians and surgeons.

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### THE POOR WHITE.

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We have seen much about the Poor White in both the lay and medical press during the last few months. He has lived in the South for several generations, and we believe that he comes from the purest Anglo-Saxon stock. He has degenerated to such an extent that he has been for a long time an absolutely worthless citizen, lazy and good for nothing. This "Poor White" really represents about 2,000,000 of wretched creatures. They are feeble, slow-moving creatures, emaciated, and with skin like tallow. They have depraved appetites of various types, but their most common habit is to eat dirt, clay, black soot, dried mortar, sand, chalk, slate pencils, shells, etc.

For many long years the cause of this marvellous degeneration was neither understood nor suspected. A few years ago, however, Dr. Charles W. Stiles, of the Hygienic Laboratory, Washington, announced, after careful investigation, that the

Poor White was not a wilful degenerate, but a helpless invalid through the work of the Uncinaria, or Hook Worm, an intestinal parasite supposed to have been brought by slaves from Africa many generations ago.

The Hook Worm is less than an inch long, and looks like a bit of soiled coarse thread. It has well-developed organs, mouth, esophagus, intestinal canal, various glands, and in the female a capacity for many thousand eggs. When it wants nourishment it presses its mouth disc against the intestine, draws a thin piece of mucous membrane into its mouth and punches it with its linches and fang. Through the minute holes thus made it sucks out the blood.

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### PASTEURIZED MILK.

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There has been a great deal of discussion during the past few years respecting what is known as the pasteurizing of milk. Probably most of us would prefer fresh pure milk without submitting it to this process. We cannot be certain, however, of getting pure milk for the great mass of inhabitants of our large cities. Actual experience in many such cities appears to give evidence in favor of the process.

We are told by Dr. C. J. Hastings, the Chairman of the Canadian Medical Association Milk Commission that Dr. Lederer, of Vienna, in his report for that city, says: "The entire milk for Vienna is submitted to pasteurization. Previous to pasteurizing the milk in Vienna the proportion between the mortality of breast-fed and bottle-fed children in the summer was 1 to 20. Since pasteurizing the proportion is 1 to 5."

Again, in the city of Rochester, N.Y., the records for ten years previous to the establishing of municipal milk stations and the use of certified milk, the mortality for the months of July and August of children under five years of age was 2,297. During the ten years following the establishment of the milk depots and the use of certified milk the mortality was 1,143.

### MEDICAL EVENTS IN HAMILTON.

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Efforts are being made to form an amalgamation between the Hamilton Medical Society and the Hamilton Medical Library Club, with the hope that this larger body will get permanent quarters in the new Library Building in that city.

It is proposed that this new organization be known as the Hamilton Academy of Medicine, also that the new Academy of Medicine will take over all the furnishings of the Medical Library Club at a certain valuation. It is also proposed that arrangements should be made for permanent quarters, probably in the new Library Building, such quarters to consist of a meeting hall, reading-room and smoking-room, all well equipped.

The annual fee for membership in the Academy will probably be \$10; such fee to cover all expenses and supply the members with good medical journals.

The proposed scheme is certainly an excellent one, and we sincerely hope that our good friends in Hamilton will be able to accomplish what they desire.

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### NOTES.

A series of post-graduate clinics is being conducted in the Toronto General Hospital on Saturday morning at 10.30 o'clock. All members of the profession are cordially invited to attend.

It was hoped at one time that Professor Osler, of Oxford, would visit America next May, and among other things attend the meeting of the Canadian Medical Association. But he writes telling us that he will be unable to leave England until after the meeting of the British Medical Association in London.

### **Annals of Surgery.**

This journal, which is now known as the *Annals of Surgery of Philadelphia*, made its first appearance on January 1st, 1885, and was the first medical journal in the world devoted entirely to general surgery. It is now completing its twenty-fifth year of existence, and is celebrating the event by sending out a special issue called the Jubilee Number for December. This journal took a high rank from the date of its first publication, and always has been, and is to-day, one of the best journals in the world.



## THE BANFF MEETING.

On the invitation of the Alberta Medical Council for a meeting of delegates of the four Western Provinces, British Columbia, Alberta, Saskatchewan and Manitoba, to consider a scheme of federation of these Provinces, there met at Banff, Alta., Sept. 28th, 1909, the following delegates, duly accredited from their respective Provincial Medical Councils, viz.:

Manitoba—Dr. J. S. Gray, Winnipeg; Dr. J. N. Hutchinson, Winnipeg; Dr. R. S. Thornton, Deloraine.

Saskatchewan—Dr. W. A. Thompson, Regina; Dr. A. MacG. Young, Saskatoon; Dr. E. A. Kelly, Swift Current.

British Columbia—Dr. W. H. Sutherland, Revelstoke; Dr. A. P. Proctor, Vancouver; Dr. A. S. Munro, Vancouver.

Alberta—Dr. R. G. Brett, Banff; Dr. G. A. Kennedy, Macleod; Dr. J. D. Lafferty, Calgary.

At the first meeting Dr. Brett was elected Chairman and Dr. Munro Secretary.

After due deliberation and discussion, the following resolutions were adopted:

1. Resolved, That the delegates of this Convention affirm the desirability of creating a Board of the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia, with duties and powers as hereinafter provided.

2. Resolved, That the Federated Board be composed of two members from each of the four Provinces, such members to be appointed by the respective Provincial Medical Councils and to hold office for a period of three years.

3. Resolved, That the Federated Board be empowered to appoint an Examining Board.

4. Resolved, That the possession of a certificate of having passed the examination of the Federal Board shall entitle the holder to registration in any one of the four Provinces upon payment of the registration fee of that Province.

5. Resolved, That the duties and powers of the Federated Board shall be:

(a) The determination and fixing the qualifications and conditions necessary for registration, including the courses of study to be pursued by students, the examinations to be undergone, and generally the requisites for registration except as hereinafter provided.

(b) To regulate the fee for examination and collection of the same.

6. (a) Resolved, That any person who begins the study of medicine after the year 1912 shall possess a certificate from some university approved of by the Board that he is a successful undergraduate of two years' standing or its equivalent qualification or a degree in Arts from an approved university.

(b) That the examination prescribed by the Federated Board shall call for a course of five years' study from those who graduate before, of not less than six months in each year in a school of medicine approved by the Board, and it shall be a complete examination in all subjects. Primary and final specified hereafter. Such examinations to be no lower than any prescribed by any of the four Provincial Medical Boards.

(d) That any registered practitioner resident in any of the four Provinces at the time of the organization of the Federated Board shall be entitled to registration on passing before the Board of Examiners the following subjects only, viz.: Medicine—Clinical and Theoretical, Surgery—Clinical and Theoretical, Pathology, Diseases of Women, Diseases of Children, Therapeutics, Obstetrics; provided always that his term of residence in actual practice in the prescribed area has not been less than five years, upon his presenting himself for examination.

(e) That the standard in examinations required be at least 50% in each of the primary subjects, and at least 60% in each of the final subjects.

7. *Finances.*—The initial expenses of the Board of Examiners shall be met by a loan or loans contributed equally from the four Provinces.

8. Resolved, That we record with pleasure the presence of Dr. Spankie, ex-President and member of the Ontario Medical Council, during our deliberations, and are gratified to learn that Ontario is desirous of joining in the Federation movement.

We regret that we are unable, at this date, to entertain this proposition owing to the imperfect development of this undertaking, but as soon as circumstances make it possible we will consider the applications for admission from other Provinces of the Dominion to join in the Federation, and the several Provincial Councils will be notified to that effect.

Resolved, That the delegates submit these resolutions and recommendations to their respective Councils and report to the Chairman (Dr. Brett), who shall call such further meeting as may be necessary.

## Personals.

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Dr. Albert A. Macdonald of Toronto returned from a trip to England November 16th.

Dr. G. F. Young, formerly of Prescott, has located in Toronto at 280 Roncesvalles Avenue.

Dr. J. Orlando Orr, who left Toronto for a trip to Great Britain and the Continent is expected home about December 20th.

Dr. T. S. Sproule, of Markdale, Sovereign Grand Master of the Grand Orange Lodge of British North America, was presented with a painting of himself in oil by the Ionic L. O. L. at a banquet in the Temple Building, Toronto, on November 8th.

Dr. Louis Wickham, the distinguished dermatologist of radium fame in Paris, has been invited to attend the meeting of the Canadian Medical Association and deliver an address. We are glad to be able to announce that he has kindly consented to do so if his engagements will allow him.



## Obituary.

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### H. H. CLUTTON. M.D., F.R.C.S.

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Dr. Clutton, Senior Surgeon of St. Thomas's Hospital, died November 9th, after a protracted illness, in his 60th year.

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### SIR STEPHEN MACKENZIE, M.D.

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Sir Stephen Mackenzie, for many years Senior Physician to the London Hospital, died September 3rd, in his 65th year.

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### WILLIAM COCKBURN, M.D.

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Dr. W. Cockburn died suddenly at his residence in Oshawa, Ont., October 27th, aged 72. He graduated from Victoria University in 1864.

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### HIRAM, A. WRIGHT, M.D.

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Dr. Hiram Wright, a prominent Detroit physician, died November 24th, after an illness of four months from typhoid fever, aged 46. He was born in Guelph, Ont., and received a part of his medical education at the Toronto School of Medicine. He completed his course in the United States and practised in Detroit during the last twenty-two years.

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### JOHN BARR, M.D.

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Dr. John Barr, M.P. for Dufferin, and for many years a resident of Shelburne, died suddenly in Ottawa, November 19th, aged 66. During his earlier years of practice he became very popular, and as a consequence was induced to go into politics. He represented Dufferin in the Ontario Legislature from 1875-9, 1890-4, 1898 to 1904. In the latter year he resigned to accept the Conservative nomination for the Commons, and was elected then and re-elected last year. He was very popular with both parties in the House of Commons. He graduated M.D. from University of Victoria College in 1866.

## Correspondence.

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### THE COUNCIL AGAIN.

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MY DEAR EDITOR,—I was very much pleased to learn from your editorial and from other sources that Dr. Spankie was present at Banff, and I hope you may secure for your readers from some reliable source an account of what was really done at the Banff meeting. From private letters and the accounts published in the *Calgary Albertan* and other papers near the scene of action I gather that, while no doubt Dr. Spankie's presence did good, we have as yet no real share at all in the movement. Let me respectfully ask you, sir, to use your influence in inducing the Council to call a special meeting to consider the situation. It seems to me that the thing for the Council to do at the present time is to seek legislation at the next session of the Ontario Legislature. They should see that the Ontario Medical Act is amended by the addition of an "enabling clause," so that when the Roddick Bill is amended it may become law in Ontario without any further delay. Delays are dangerous.

How would it do to invite representatives of the Councils of the four Western Provinces to meet and confer with the members of the Council or their accredited representatives at that special meeting? The Council is great on questions of mileage. Let us see mileage applied where it will do most good to the Dominion of Canada and the profession of medicine.

I am, sir,

Yours, etc.,

M. D.

October 31st, 1909.

## Book Reviews.

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MODERN MEDICINE. ITS THEORY AND PRACTICE. In Original Contributions by American and Foreign Authors. Edited by William Osler, M.D., Regius Professor of Medicine in Oxford University, England; formerly Professor of Medicine in Johns Hopkins University, Baltimore; in the University of Pennsylvania, Philadelphia, and in McGill University, Montreal. Assisted by Thomas McCrea, M.D., Associate Professor of Medicine and Clinical Therapeutics in Johns Hopkins University, Baltimore. In seven octavo volumes of about 900 pages each, illustrated. Volume VI., Diseases of the Urinary System, of the Ductless Glands, of the Muscles, Diseases of Obscure Causation, Vasomotor and Trophic Disorders, Medical Aspects of Life Insurance. Just ready. Price per volume: cloth, \$6.00 net; leather, \$7.00 net; half morocco, \$7.50 net. Philadelphia and New York: Lea & Febiger. 1909.

The sixth volume of Osler's *Modern Medicine*, just off press, covers a very wide and important range of subjects, namely, the diseases of the urinary system, of the ductless glands, of the muscles, those of obscure causation, vasomotor and trophic disorders, and the medical aspects of life insurance. These diseases are all handled by specially competent men. John McCrae, of Toronto, begins the volume with two chapters on the kidney, followed by two on urinary anomalies and uremia by Garrod, of London. Herrick, of Chicago, deals with all aspects of nephritis, as well as amyloid disease, and Thomas R. Brown, of Baltimore, considers pyogenic and tubercular affections of the kidney. Its medico-surgical aspects, from the pen of H. H. Young, of Baltimore, conclude this section. George Dock, formerly of Ann Arbor, and now of New Orleans, has written the entire section on the ductless glands. Longcope, of Philadelphia, considers Hodgkin's Disease; T. McCrae, of Baltimore, arthritis deformans; Dock, of New Orleans, osteomalacia; and D. J. McCarthy, of Philadelphia, astasia-abasia and adiposis dolorosa. Together with W. R. Steiner, of Hartford, McCarthy has written the section on muscular diseases. The editor, Dr. Osler, with his former colleague, C. P. Emerson, of Baltimore, handles the section on vasomotor and trophic disorders, and Charles Lyman Greene, of St. Paul, concludes with the medical aspects of life insurance.

It is obvious from the foregoing brief of contents that the



English-speaking world of medicine is ably and impartially represented, and that the cosmopolitanism which is a distinguishing feature of *Modern Medicine* is consistently maintained. The best collective medical knowledge of the world is being placed at command of every practitioner in the most helpful form. The seventh volume will cover diseases of the nervous system, and will complete this great library of medicine. Its practical value is attested by its phenomenal success.

---

A HANDBOOK OF MEDICAL DIAGNOSIS for the use of practitioners and students. By J. C. Wilson, A.M., M.D., Professor of the Practice of Medicine and Clinical Medicine in the Jefferson Medical College, and Physician to its Hospital; Physician to the Pennsylvania Hospital; Physician-in-Chief to the German Hospital, Philadelphia. 408 illustrations and 14 full-page plates. Philadelphia and London: J. B. Lippincott Company.

The author divides the book into four parts—medical diagnosis in general, the methods and their immediate results, symptoms and signs, and the clinical applications. Each of these subdivisions is dealt with in a most masterly way, and in a style so readable that one feels at once the volume is something out of the ordinary. No other work we know of is so satisfactory from the general practitioner's point of view. Many new and excellent cuts are introduced, not for the purpose of showing what a wonderful man the author is—a custom all too common in modern text-books—but good diagrams and photographs to illustrate diseases described. The publishers have done their part well, and have presented to the medical public a work that we can most heartily endorse.

---

VACCINE AND SERUM THERAPY. Including also a study of Infections, Theories of Immunity, Opsonins and the Opsonic Index. By Edwin Henry Scharer, B.S., M.D., Assistant Professor of Parasitology and Hygiene, University of Missouri; formerly Assistant Rockefeller Institute for Medical Research, New York City. Published by C. V. Mosby Co., St. Louis, U.S.A. 1909.

We have in the above volume a concise review of the present status of the various sera and vaccines, presented in a form suit-

able for perusal by small practitioners. Emphasis has been laid on Wright's opsonic theories and technique, and in the later chapters on the various vaccines and their application in the practice of medicine. Serum therapy, its application and results are also treated at length. Altogether we gather from this work a clear account of the subjects discussed brought fully up to date.

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### BOOKS RECEIVED.

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THE MORPHIA HABIT AND ITS VOLUNTARY RENUNCIATION. (A personal relation of a suppression after twenty-five years' addiction.) With notes and additional cases by Oscar Jennings, M.D. (Paris), Fellow of the Royal Society of Medicine. *Quoeque ipse miserrima vidi, Et quorum pars magna fui.* London: Bailliere, Tyndall & Cox, 8 Henrietta Street. Paris: Brentano, 37 Avenue de l'Opera. 1909.

---

A TREATISE ON THE PRINCIPLES AND PRACTICE OF MEDICINE. By Arthur R. Edwards, A.M., M.D., Professor of the Principles and Practice of Medicine and of Clinical Medicine, and Dean of the Faculty in the Northwestern University Medical School, Chicago; Attending Physician to Mercy, Wesley Hospitals, etc. Second and thoroughly revised edition. Illustrated with 100 engravings and 21 plates. New York and Philadelphia: Lea & Febiger. 1909.

---

MANUAL OF THE DISEASES OF THE EYE. For students and general practitioners. By Charles H. May, M.D., Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department, Columbia University, New York, 1890-1903; Attending Ophthalmic Surgeon to the Mt. Sinai Hospital, New York; Consulting Ophthalmologist to the French Hospital, to the Gouverneur Hospital, to the Red Cross Hospital, and to the Italian Hospital, New York. Sixth edition, revised. With 362 original illustrations, including 22 plates, with 62 colored figures. New York: William Wood & Co. 1909. Price, \$2.00 net.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. For the use of Students and Practitioners. By James Nevins Hyde, A.M., M.D., Professor of Dermatology in Rush Medical College, Chicago; Professional Lecturer on Diseases of the Skin, University of Chicago; Dermatologist to the Presbyterian, Michael Reese, Augustana, and Children's Memorial Hospitals and the Orphan Asylum, of the City of Chicago; Member of the American Dermatological Association; Corresponding Member of the Societe Francaise de Dermatologie et de Syphiligraphie; Corresponding Member of the Wiener Dermatologische Gesellschaft; and Corresponding Member of the Dermatologische Gesellschaft, and Honorary Member of the Societe Italiana di Dermatologia e Sifilografia. Eighth and revised edition. Illustrated with 223 engravings and 58 plates in colors and monochrome. Lea & Febiger, Philadelphia and New York. 1909.

---

DISEASES OF THE NOSE, THROAT AND EAR. Medical and Surgical. By William Lincoln Ballenger, M.D., Professor of Otolaryngology, Rhinology and Laryngology, College of Physicians and Surgeons, Department of Medicine, University of Illinois; Fellow of the American Laryngological, Rhinological and Otolaryngological Association; Fellow of American Academy of Ophthalmology and Otolaryngology, etc. Second edition, revised and enlarged. Illustrated with 491 engravings and 17 plates. Philadelphia and New York: Lea & Febiger. 1909.

---

THE MEDICAL COMPLICATIONS, ACCIDENTS AND SEQUELS OF TYPHOID FEVER AND THE OTHER EXANTHEMATA. By Hobart Amory Hare, M.D., B.Sc., Professor of Therapeutics in the Jefferson Medical College of Philadelphia; Physician to the Jefferson College Hospital; one time Clinical Professor of Diseases of Children in the University of Pennsylvania; and E. J. G. Beardsley, M.D., L.R.C.P. (Lond.), Assistant Physician of the Out-Patient Department of the Jefferson Medical College Hospital; Assistant Demonstrator of Physical Diagnosis and Clinical Medicine at the Jefferson Medical College; Physician to the Henry Phipps Institute. With a special chapter on the Mental Disturbances Following Typhoid Fever. By F. X. Dercum, M.D., Professor of Mental and Nervous Diseases in the Jefferson Medical College. With 26 illustrations and 2 plates. Philadelphia and New York: Lea & Febiger.



## Miscellaneous.

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### Bad Debts.

Bad debts are responsible for the poverty of doctors more than any other business factor. Practically all medical men make enough money and have ample business to supply them with every comfort, but, unfortunately, the doctor is, as a rule, a very bad collector, and contents himself with only a small percentage of the money that he actually earns. There is enough business for all of the doctors in the land. The condition of medical practice from a business point of view is undercollected rather than overcrowded.

Not only are doctors poor collectors, but they seem rather to encourage an expectation on the part of the public that doctors will continue poor collectors. Most of us have a sneering way of speaking of the "close-fisted, penurious old cuss" who is the doctor who collects something from the rich and poor alike for the work he does. We may deny it, but so inbred is our lack of business sense that deep in our hearts we condemn the business-like doctor, at the same breath condemning the public for its failure to pay.

There is one prominent surgeon in Chicago whose office is reached by the patient only after passing through an outer office in which the doctor's secretary demands and gets a ten-dollar bill. That pays for the first consultation, and it is retained regardless of future business arrangements. This does not work a hardship upon the very poor, for this surgeon devotes several hours each day to free dispensaries and clinics where the poor are received and cared for. His office is reserved for his money-making, and by his good business methods he has been able to do more for the worthy poor, more for medical science, and more, incidentally, for his family and himself, than if he had gone ahead in the slipshod business way which is expected of medical men.

Poverty will be the lot of the medical profession until the doctor is not only convinced that the "servant is worthy of his hire," but until the doctor sees to it that the servant gets his hire. Your grocer does not say to you, when he comes to an accounting, "Your bill is \$50, but pay me \$20 and we will call it square." Hundreds of doctors close their accounts in this way with people who are amply able to pay in full. Is it because the doctor feels that his services are not worth the compensation?

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# CONTENTS

## EDITORIALS

Western Federation .....	780
Ontario Medical Council .....	781
The Roddick Bill .....	782
Operations and Proper Names .....	783
Reciprocity with Great Britain .....	784
Medical Automobilist .....	785
The Poor White .....	786
Pasteurized Milk .....	787
Medical Events in Hamilton .....	788
Notes .....	788
The Banff Meeting .....	789

## PERSONALS

Personals .....	791
-----------------	-----

## OBITUARY

H. H. Clutton, M.D., F.R.C.S. ....	792
Sir Stephen Mackenzie, M.D. ....	792
William Cockburn, M.D. ....	792
Hiram A. Wright, M.D. ....	792
John Barr, M.D. ....	792

## CORRESPONDENCE

The Council Again .....	793
-------------------------	-----

## BOOK REVIEWS

Modern Medicine: Its Theory and Practice .....	794
A Handbook of Medical Diagnosis .....	795
Vaccine and Serum Therapy .....	795

## BOOKS RECEIVED

The Morphia Habit and its Voluntary Renunciation .....	796
A Treatise on the Principles and Practice of Medicine .....	796
Manual of the Diseases of the Eye .....	796
A Practical Treatise on Diseases of the Skin .....	797
Diseases of the Nose, Throat and Ear .....	797
The Medical Complications, Accidents and Sequels of Typhoid Fever, and the other Exanthemata .....	797

## MISCELLANEOUS

Bad Debts .....	798
-----------------	-----

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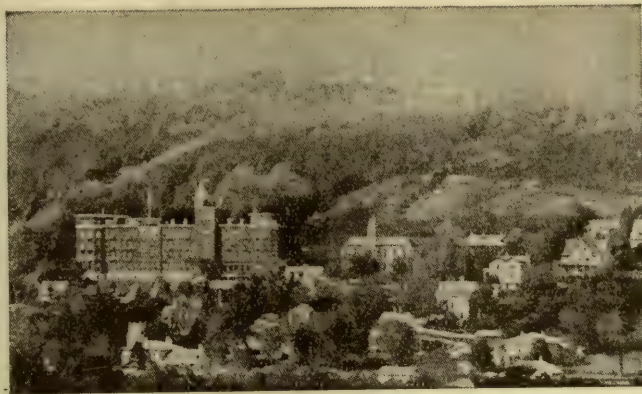
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The griping pain and flatulence which accompany bowel and stomach complaints, particularly during the heated term, are so readily overcome and controlled by the timely administration of one or two Antikamnia and Salol Tablets, repeated every two or three hours, that it behooves us to call our readers' attention to the grand efficacy of this well-known remedy in these conditions. The above doses are, of course, those for adults. Children should be given one-fourth tablet for each five years of their age. When the attack is very severe, or when the disturbance is evidenced at or near the time of the menstrual period, we find it preferable to give two Antikamnia and Codeine Tablets, alternately with the Antikamnia and Salol Tablets. The latter tablets promptly arrest excessive fermentation and have a pronounced sedative effect on the mucous membranes of the bowels and stomach, and will check the various diarrheas without any untoward effect.

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**The Modern Hiawatha.**

“He killed the noble Mudgaktivis,  
Of the skin he made his mittens,  
Made them with the fur side inside,  
Made them with the skin side outside,  
Put the inside skin outside,  
He to get the cold side outside,  
Put the warm side fur side inside,  
That's why he put the skin side outside,  
Why he turned them outside inside.”—*Exchange*.

---

**Treatment of Pernicious Anemia.**

Bramwell, in the *British Medical Journal*, states that during the past year he has met with two cases of advanced pernicious anemia in which, after a certain degree of improvement had taken place, under arsenic, arrest of the improvement occurred, and in which the administration of iron was then attended with very marked and rapid alteration for the better.

It has for long been recognized that in typical cases of pernicious anemia, in which the color index is above the normal and each individual red-blood-corpuscle contains more than the normal amount of hemoglobin, the administration of iron is usually unattended with benefit, and is in many cases apparently injurious. This has been the author's experience; but he has met with some exceptions, amongst which the two cases he has just reported are perhaps the most striking.

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One's health is "below par" when the oxygen-carrying activity of the blood cells is insufficient to maintain the vital force at its proper standard.

### Pepto-Mangan (Gude)

by increasing the iron supply of the hemoglobin, restores a normal metabolic balance.

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**Suggestions as to the Method of Using the Renal Serum.**

Experience has shown hitherto that it was especially in cases of acute insufficiency, that sero-therapy was capable of stopping, with the best chances for success, the attacks of auto-intoxication whatever may be, by the way, the mechanism theoretically invoked to explain its happy effects. These being the reestablishment more or less complete, of the diuresis, the notable elimination of the urine, the diminution of the suffering and of the dyspnea, cessation of the convulsive attacks, re-appearance of the phenomena of consciousness, return to sleep, and, as a consequence, the consequent attenuation, if not the entire disappearance of the albumen in the urine.

The uremic attacks seem to be all the more amenable to this mode of treatment when they occur in the course of a chronic nephritis, and when they seem to be attributable to the functional inhibition of the kidney, under the effect of sub-acute congestion of that organ, and above all, in the case of an intercurrent infectious malady.

The technical application is very simple; it is necessary to use a serum that is not too fresh, in order to avoid seric attacks; a dose of 20 c.c. injected under the skin of the abdomen, represents the average dose to be employed the first time. It is well to have the patient take at the same time one or two grams of chloride of calcium, for the sake of avoiding the cutaneous eruptions from seric intoxications in general; the transient administration of this remedy in these feeble doses being absolutely harmless in nephritis.

In serious cases, the injections should be made three or four days in succession, in doses of 10 c.c.; otherwise they may be made every two days, or more, according to results obtained.

The serum must be kept in a refrigerator; sometimes it takes on a rosy tint and contains some flaky matter of an albuminous nature, but this does not indicate that serum has changed in quality. The sterility of the serum having been tested before the closing of the flasks, it lasts as long as the sealing of the containers, done carefully with paraffine, remains intact.

The serum contains no antiseptic substances whatever.

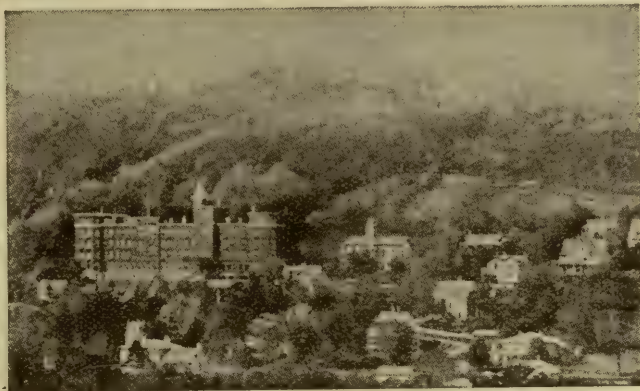
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Lives of some great men remind us  
That we will, if we are wise,  
Leave our modesty behind us  
And get out and advertise.

—Judge.



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**Samples on  
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The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Senor Alvarenga, and amounting to about one hundred and eighty dollars, will be made on July 14, 1910, provided that an Essay deemed by the Committee of Award to be worthy of the prize shall have been offered.

Essays intended for competition may be upon any subject in Medicine, but cannot have been published. They must be type-written, and must be received by the Secretary of the College on or before May 1, 1910.

Each essay must be sent without signature, but must be plainly marked with a motto, and be accompanied by a sealed envelope, having on its outside the motto of the paper and within the name and address of the author.

It is a condition of competition that the successful essay or a copy of it shall remain in possession of the College; other essays will be returned upon application within three months after the award.

THOMAS R. NEILSON, M.D., *Secretary.*

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**Influence of Bitters on Absorption.**

Heubner and Rieder relate experiments which seem to indicate that the influence of bitters on the digestion is the result of their action on the motor function of the stomach. Animals taking small amounts of bitters continuously had the stomach filled with food even fifteen hours after the meal. In many cases of stomach trouble, retention of the food in the stomach for a certain time may favor its digestion. This may explain reflux of the bile into the stomach, sometimes observed with food that is difficult to digest, and also the craving for bitters at times.—*Therap. Monatshrift.*

---

**A Healthy Resort.**

"Is this a healthy place?"

"You bet it is. Only two people died here in ten years."

"What of?"

"Starvation. You see one of them was the doctor and t'other the undertaker."—*Puck.*

## CHRONIC INVALIDISM

is as often due to hemolytic states as to other conditions. In such cases, General and Cerebral Anemia is a distinct operative factor.

**Pepto-Mangan (Gude)**

by virtue of its hematinic power, often lays the rational foundation for a quicker recovery.

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Samples and  
Literature upon  
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Our Bacteriological Wall Chart or our Differential Diagnostic Chart will be sent to any Physician upon application.



**Abdominal Typhoid Fever Without Pyrexia.**

De Gaetani Giunta reports a case of a girl, ten years old, ill for two weeks, complaining of malaise, anorexia, headache, frequent evacuations. The tongue was markedly red at the tip and along the sides; the abdomen swollen and tender on palpation; spleen enlarged; temperature, pulse and respiration normal; urine showed Ebrlich's diago-reaction. The clinical symptoms led the physician to diagnose abdominal typhoid. The examination of the blood was negative in the search for pathogenic germs, but was positive in the Widal reaction. It also showed a marked leucopenia. On the twenty-fourth day the patient had, for one day only, bloody evacuations. After this improvement took place.

With regard to the hemorrhage from the bowel De Gaetani states that it may depend on the separation of the scar formed on the typhoid ulcer or on an excessive hyperemia of the intestinal mucosa. In the present instance, in which it was not abundant and lasted but one day, it must have had the latter origin, because, as Zuccolo has proven, intestinal hemorrhages from congestion last from one to two days, while those depending on the separation of the scars are multiple and follow one another at intervals of one or two days, because the lesions of Peyer's patches do not all take place at the same time, and hence the separation of the scars must follow the order of the lesions.

The cause of the excessive hyperemia of the mucosa, seat of the pathogenic germ, is easily understood, because Eberth's bacillus is a potent producer of hemorrhage (Zuccolo, Tramer). Moreover, we know the influence of its toxins on the vessel walls and on the vasomotor system.—Translated from *Giornale Internazionale delle Scienze Mediche*, by Harley Smith.

**Fibrolysin in Obesity.**

A new use for fibrolysin has been discovered by A. Riedel. In one case fibrolysin injections (one every other day, irregularly during four months) were given for a stiff shoulder. The shoulder improved, and the patient, who was very fat, lost two pounds a week during the cure.

In a second case the loss in weight was four pounds the first week and two pounds each subsequent week. No deleterious effects were noticed that could be ascribed to excessive breaking down of proteid tissue.—*Muench. med. Woch.*













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